DEVLET METEOROLOJİ İŞLERİ GENEL MÜDÜRLÜĞÜ
ARAŞTIRMA ve BİLGİ İŞLEM DAİRESİ BAŞKANLIĞI
ARAŞTIRMA ŞUBE MÜDÜRLÜĞÜ

Kentsel Hava Kirliliği Riski için Enverziyon Tahmini

2007-2008 Kış Dönemi (Eylül, Ekim, Kasım, Aralık, Ocak) Değerlendirmesi

Cihan DÜNDAR, Çevre Yüksek Mühendisi
Nezahat ÖZ, Meteoroloji Mühendisi

Mart 2008, Ankara

YÖNETİCİ ÖZETİ

Hava kirliliği deyimiyle, sanayi devriminden bu yana karşılaşmaktayız. Doğa veya insan kaynaklı salımlar sonucu, atmosferde bulunan kirleticilerin belirli seviyeleri aşması ve uygun meteorolojik koşullar altında canlı ve cansız varlıklar üzerinde olumsuz etkiler yapması olayına **hava kirliliği** ismi verilmektedir.

Meteorolojik koşullar (**enverziyon**, karışma yüksekliği, sıcaklık, rüzgar, nem, vb.), kentlerde hava kirliliğine neden olan faktörlerin en önemlilerindendir.

Sıcaklık, normal atmosfer koşulları içerisinde yerden itibaren yükseldikçe her 100 m'de 0.5 ile 1.0 °C arasında azalma eğilimi göstermektedir. Sıcaklığın yükseklikle azalacağı yerde artış göstermesi durumuna sıcaklık terselmesi (temperature of inversion) yada **sıcaklık enverziyonu** denilmektedir.

Sıcaklık terselmesinin görüldüğü durumlarda enverziyonun tabanı, yükselen hava hareketlerinin son bulduğu sınırdır. Bu durumda dikey hareketler yok denecek kadar az olacağından atmosfere atılan kirleticiler yükselemeyecek, yatay hava akımlarının da bu olaya bağlı olarak çok az olmasından dolayı yatay yönde de taşınma olmayacak ve sonuçta atmosferdeki kirletici konsantrasyonu artarak, hava kirliliği sorunu yaşanabilecektir.

Oluşan enverziyonun şiddeti, süresi, kalınlığı ve yerden yüksekliği yaşanan hava kirliliğinin yoğunluğunu doğrudan etkilemektedir.

Genel Müdürlüğümüzde yürütülen "Kentsel Hava Kirliliği Riski için Enverziyon Şiddeti Tahmini" çalışması ile il merkezleri ve bazı ilçe merkezlerinde, özellikle kış mevsiminde hava kirliliği yaşanma riskine yönelik olarak **Enverziyon Şiddeti Tahmini** yapılarak kamuoyuna duyurulması ve ilgili kurum ve kuruluşlar tarafından gerekli önlemlerin alınmasının sağlanması amaçlanmaktadır.

Yapılan çalışma sonucunda, kentsel hava kirliliği yaşanma riskine yönelik olarak, üç günlük süre için üçer saatlik zaman aralıklarında yapılan Enverziyon Şiddeti Tahminleri, Genel Müdürlüğümüzün internet sitesinde günlük olarak yayınlanmaktadır.

Enverziyon tahmini için, ilk olarak Avrupa Orta Vadeli Tahminler Merkezinin (ECMWF) 3 günlük (72 saat) sayısal hava tahminlerinden, yer seviyesinden yukarıdaki ilk 1500 m için yüksek atmosfer verileri alınarak, tahmin yapılacak noktalar için dikey sıcaklık ve rüzgar profilleri hazırlanmaktadır. Hazırlanan bu profillerden, dikey sıcaklık artışının yani enverziyon tabakasının varlığı ve miktarı, bu tabakanın yerden yüksekliği ve kalınlığı ile bu tabaka içindeki minimum rüzgar hızı dikkate alınarak enverziyon şiddeti hesaplanmaktadır.

Bu çalışmada, yüksek atmosfer gözlemleri yapılan Adana, Ankara, Diyarbakır, Erzurum, Isparta, İstanbul, İzmir ve Samsun illeri için 2007-2008 kış dönemi (Eylül, Ekim, Kasım, Aralık, Ocak) boyunca üretilen tahmin sonuçları, aynı dönemde gözlemlenen radiosonde ölçümleri ve ECMWF analiz ürünleri ile karşılaştırılmıştır. Sonuçların değerlendirilmesinde, tahmin tutarlılık oranları ile tahmin edilen ve gözlemlenen veriler arasındaki korelasyon katsayıları, Ortalama Standart Hatalar ve Ortalama Hata Kareleri Toplamının Karekökleri kullanılmıştır.

Elde edilen sonuçlara göre, yapılan enverziyon tahminleri ile ECMWF analiz sonuçları arasında büyük oranda uyum olduğu görülmektedir. Tahminler ile radiosonde ölçümleri arasındaki uyum ise ECMWF analizlerine göre daha düşük bulunmuştur. Tahminlerin ECMWF analiz sonuçlarına göre tutarlılığı % 85-98 aralığında gerçekleşirken, bu oran radiosonde ölçümlerine göre % 61-94 olarak bulunmuştur. Diğer taraftan 00 Z için yapılan tahminlerin, 12 Z için yapılan tahminlere göre daha tutarlı olduğu saptanmıştır.

00 Z için yapılan tahminler ile ECMWF analiz değerleri arasındaki korelasyon katsayısı 1'e çok yakın bulunmuştur. Korelasyon katsayılarını göz önünde bulundurarak, 00 Z için yapılan

enverziyon tahminleri ile hem ECMWF analiz verileri hem de radiosonde ölçüm değerleri arasında pozitif yönde yüksek oranda ilişki olduğu, başka bir deyişle tahmin tutarlılıklarının yüksek olduğu sonucu ortaya çıkmaktadır.

Ortalama standart hata (ME) ve ortalama karekök hatası (RMSE) analizlerine göre elde edilen değerler, sıfıra yakın bulunmuştur. Bu analizler de yapılan tahminlerin tutarlılığının yüksek olduğunu göstermektedir.

12 Z için yapılan tahminler ile ECMWF analiz değerleri arasındaki korelasyon katsayısı 0.73-0.89 aralığında, radiosonde gözlemleri ile yapılan korelasyon katsayıları ise 0.01-0,56 aralığında elde edilmiştir. Korelasyon katsayılarını göz önünde bulundurarak, 12 Z için yapılan enverziyon tahminleri ile ECMWF analiz verileri arasında pozitif yönde iyi bir ilişki olduğu görülmektedir. Ancak, radiosonde gözlemleri ile yapılan tahminler arasındaki bir ilişkiden bahsetmek olanaklı değildir. Bu durum, 12 Z için yapılan tahminlerin tutarlılığının yeterli olmadığını göstermektedir.

Ortalama standart hata (ME) ve ortalama karekök hatası (RMSE) analizlerine göre elde edilen değerler, sıfıra çok yakın bulunmuştur. Objektif verifikasyon analizleri, yapılan tahminlerin tutarlılığının yüksek olduğunu göstermektedir.

00 Z için Tahmin Doğruluk Oranları ve Objektif Verifikasyon Sonuçları

İstasyon	Doğru Tahmin Oranı (%)		Korelasyon		Ort. Standart Hata (ME)		Ort. Karekök Hatası (RMSE)	
	Analiz	Radio.	Analiz	Radio.	Analiz	Radio.	Analiz	Radio.
Adana	92	80	0.969	0.859	0.12	-0.03	0.58	1.20
Ankara	94	84	0.981	0.811	0.03	0.74	0.36	1.41
Diyarbakır	96	90	0.961	0.685	-0.10	0.27	0.55	1.83
Erzurum	92	80	0.976	0.751	0.03	0.29	0.57	1.73
Isparta	92	84	0.938	0.729	0.22	0.27	0.81	2.06
İstanbul	90	70	0.968	0.731	0.08	-0.03	0.38	1.30
İzmir	94	74	0.958	0.575	0.19	1.19	0.64	2.13
Samsun	91	71	0.958	0.487	0.16	1.47	0.79	2.93

Bu çalışmanın oluşturulmasına öncülük eden sayın Mahmut KAYHAN ile programı yazan sayın Ali Kemal BAKIR başta olmak üzere, bütün aşamalarında destek olan ve emeği geçen Araştırma ve Bilgi İşlem Dairesi Başkanlığı, SHT, EBİM ve Araştırma Şube Müdürlüğü yönetici ve çalışanlarına teşekkür ederiz.

İÇİNDEKİLER

Kentsel Hava Kirliliği Riski için Enverziyon Tahmini
2007-2008 Kış Dönemi (Eylül, Ekim, Kasım, Aralık, Ocak) Değerlendirmesi

I. Hava Kirliliği ve Meteoroloji

Hava kirliliği deyimiyle, sanayi devriminden bu yana karşılaşmaktayız. **Doğa veya insan kaynaklı salımlar sonucu, atmosferde bulunan kirleticilerin belirli seviyeleri aşması ve uygun meteorolojik koşullar altında canlı ve cansız varlıklar üzerinde olumsuz etkiler yapması olayına hava kirliliği ismi verilmektedir.** Hava kirleticileri çok çeşitli olmakla beraber, kentsel hava kirliliği genellikle atmosferde bulunan kükürtdioksit (SO_2) ve partikül madde (P.M.) konsantrasyonlarının ölçülmesiyle saptanmaktadır. Yer seviyesi ozonu, son dönemlerde özellikle gelişmiş ülkelerde kentsel hava kirliliği açısından takip edilen önemli parametrelerden biri olmuştur.

Kentlerde hava kirliliğine neden olan faktörler; kirleticilerin varlığı (yakıt kalitesi, endüstriyel gelişmişlik, nüfus, nüfus yoğunluğu vb.), topoğrafya ve coğrafik koşullar ile meteorolojik şartlardır (enverziyon, karışma yüksekliği, sıcaklık, rüzgar, nem, vb.). Meteorolojik koşulların en önemlisi ise Enverziyon (Sıcaklık Terselmesi) durumunun oluşmasıdır.

Sıcaklık, normal atmosfer koşulları içerisinde yerden itibaren yükseldikçe her 100 m'de 0.5 ile 1.0 °C arasında azalma eğilimi göstermektedir. Sıcaklığın yükseklikle azalacağı yerde artış göstermesi durumuna **sıcaklık terselmesi** (temperature of inversion) yada **sıcaklık enverziyonu** denilmektedir.

Sıcaklık terselmesi yer seviyesinden itibaren meydana geliyorsa, bu duruma **yer seviyesi enverziyonu**, yerden daha yukarı seviyelerde meydana gelmesi durumuna ise **yüksek seviye enverziyonu** adı verilmektedir.

Sıcaklık terselmesinin görüldüğü durumlarda enverziyonun tabanı, yükselen hava hareketlerinin son bulduğu sınırdır. Enverziyon yerden itibaren veya yere çok yakın bir seviyeden başlaması durumunda, dikey hareketler yok denecek kadar az olacağından, su buharı ve atmosferik kirleticiler yükselemeyecek, yatay hava akımlarının da bu olaya bağlı olarak çok az olmasından dolayı yatay yönde de taşınma olmayacak ve sonuçta atmosferde kirletici konsantrasyonu artarak, hava kirliliği sorunu yaşanabilecektir.

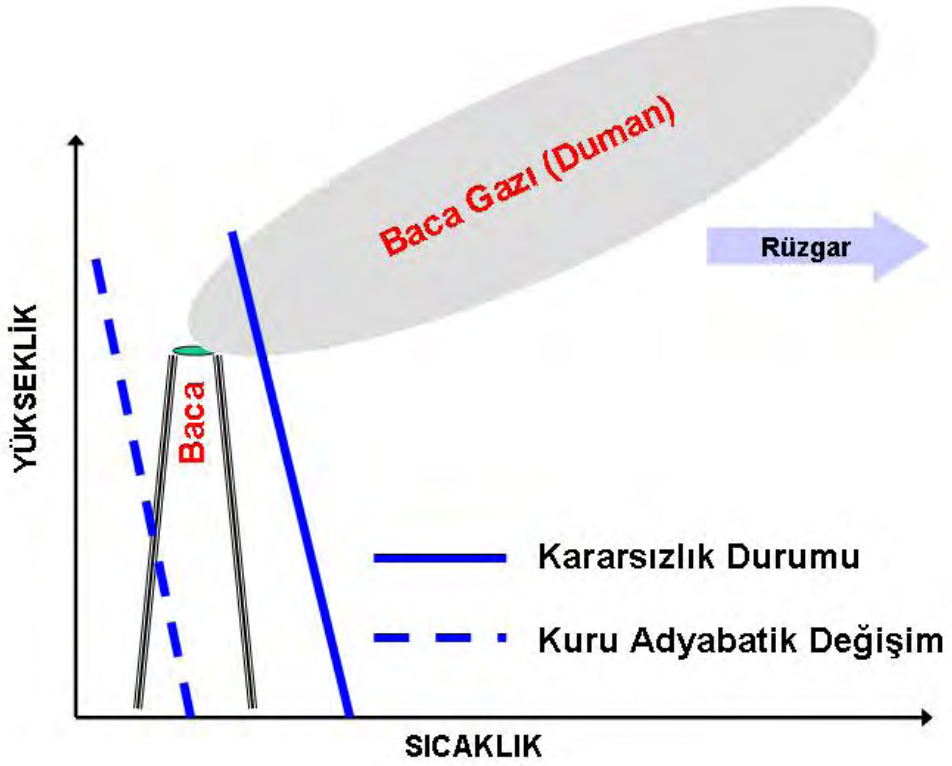
Oluşan enverziyonun şiddeti, süresi, kalınlığı ve yerden yüksekliği yaşanan hava kirliliğinin yoğunluğunu doğrudan etkilemektedir.

Pek çok kentimizde özellikle kış aylarında yoğun olarak karşılaştığımız hava kirliliği insan sağlığı açısından önemli problemler yaratmakta ve hatta bazı durumlarda ölümlere bile neden olabilmektedir. Geçmiş yıllarda dünya üzerinde ölümlere neden olmuş bazı hava kirliliği olayları örnek olarak aşağıda verilmiştir.

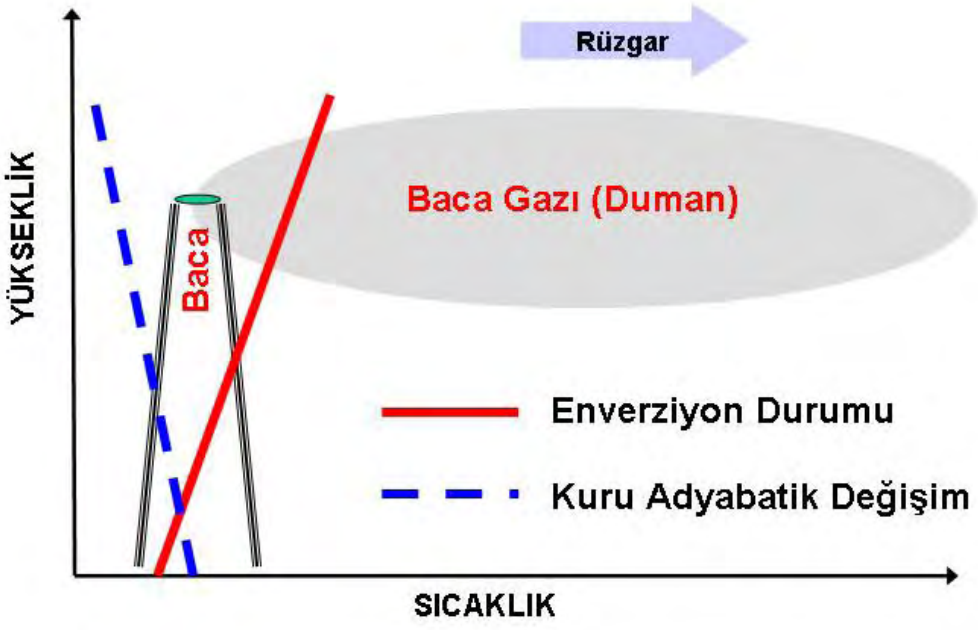
Bazı Hava Kirliliği Olayları ve Sonuçları

Tarihi	Yeri	Ölü Sayısı
Aralık 1930	Meuse Valley, Belçika	63
Ekim 1948	Donora, Pensilvanya,ABD	17
26 Kasım-1 Aralık 1948	Londra, İngiltere	700-800
5-9 Aralık 1952	Londra, İngiltere	4.000
3-6 Ocak 1956	Londra, İngiltere	1.000
2-5 Aralık 1957	Londra, İngiltere	700-800
26-31 Ocak 1959	Londra, İngiltere	200-250
5-10 Aralık 1967	Londra, İngiltere	700
7-22 Ocak 1963	Londra, İngiltere	700
9 Ocak-12 Şubat 1963	New York, ABD	200-400

KARARSIZLIK DURUMU (Enverziyon yok)



ENVERZİYON DURUMU



II. “Kentsel Hava Kirliliği Riski için Enverziyon Şiddeti Tahmini” Çalışması

Genel Müdürlüğümüzde yürütülen “Kentsel Hava Kirliliği Riski için Enverziyon Şiddeti Tahmini” çalışması ile il merkezleri ve bazı ilçe merkezlerinde, özellikle kış mevsiminde hava kirliliği yaşanma riskine yönelik olarak **Enverziyon Şiddeti Tahmini** yapılarak kamuoyuna duyurulması ve ilgili kurum ve kuruluşlar tarafından gerekli önlemlerin alınmasının sağlanması amaçlanmaktadır.

Kentlerimizde meydana gelen enverziyon olaylarının büyük çoğunluğu, havanın açık olduğu (bulutların olmadığı veya çok az olduğu) durumlarda, yer yüzeyinin hızla soğuması nedeniyle, gece ve sabah erken saatlerde oluşmaktadır. Bu nedenle meydana gelen enverziyon durumu, genellikle öğlen saatlerine doğru yer yüzeyinin ısınmasıyla birlikte ortadan kalkmaktadır.

Özellikle kuvvetli (şiddetli) enverziyonun beklendiği günlerde, sabah saatlerinde kötü kaliteli yakıt kullanılan yerleşim merkezlerinde kalorifer ve sobaların yakılmaması veya düşük kapasitede yakılması, endüstriyel emisyonların azaltılması, oluşacak hava kirliliğinin yoğunluğunu düşürecektir.

Kentsel hava kirliliği yaşanma riskine yönelik olarak, üç günlük süre için üçer saatlik zaman aralıklarında yapılan Enverziyon Şiddeti Tahminleri, Genel Müdürlüğümüzün internet sitesinde günlük olarak yayınlanmaktadır.

Tahmin edilen Enverziyonun şiddet sınıflandırması aşağıda verilmiştir. Özellikle Kuvvetli Enverziyonun beklendiği günlerde, gerekli önlemler alınarak hava kirliliğinin alt düzeyde yaşanması veya hiç yaşanmaması sağlanabilir.

II.1. Enverziyon Tahmin Algoritması

İlk olarak, Avrupa Orta Vadeli Tahminler Merkezinin (ECMWF) 3 günlük (72 saat) sayısal hava tahminlerinden, yer seviyesinden yukarıdaki ilk 1500 m için yüksek atmosfer verileri alınarak, tahmin yapılacak noktalar için dikey sıcaklık ve rüzgar profilleri hazırlanmaktadır. (*Hava Kalitesinin Korunması Yönetmeliğinde belirtilen Kritik Meteorolojik Şartlar: 700 m’nin altında en az 2 °C sıcaklık artışı ve 12 saatlik rüzgar hızı ortalamasının 1,5 m/s’den daha düşük olması*).

Enverziyon tahmini, ECMWF tarafından 12 GMT’de üretilmiş olan tahmin verisi ile, 00 GMT (t+12) saatinden itibaren 3’er saatlik periyotlar halinde, 3 günlük (72 saat) periyodu kapsamaktadır.

Enverziyon tahmini algoritması, dikey sıcaklık artışının yani enverziyon tabakasının varlığı ve miktarı, bu tabakanın yerden yüksekliği ve kalınlığı ile bu tabaka içindeki minimum rüzgar hızı dikkate alınarak hazırlanmıştır. Dikkate alınan tüm parametreler için sınır değerler belirlenmiş ve bu kapsamda puanlar hesaplanmıştır.

En şiddetli enverziyon 100 puan üzerinden değerlendirilerek, aşağıda verilen sınıflandırma yapılmıştır.

Kentsel Hava Kirliliği Riski için Enverziyon Şiddeti Tahmini

Puan	0 - 20	20 - 50	50 - 80	80 - 100
Enverziyon Şiddeti	Yok	Zayıf	Orta	Kuvvetli

Tahmin edilen Enverziyon Şiddeti (**R**) aşağıdaki formül ile hesaplanmaktadır.

$$R = r1 + r2 + r3 + r4 + r5$$

Bu formülde;

R = Enverziyon şiddeti

r1 = Enverziyon tabakasının varlığı (maksimum 20 puan)

r2 = Sıcaklık farkı, **dt** (maksimum 35 puan)

r3 = Minimum rüzgar hızı, **Vmin** (maksimum 15 puan)

r4 = Enverziyonun yerden yüksekliği, **h** (maksimum 10 puan)

r5 = Enverziyonun kalınlığı, **d** (maksimum 20 puan) olarak tanımlanmıştır.

Algoritma ile öncelikle, dikey sıcaklık profili incelenmektedir. Eğer bir üst tabakanın sıcaklığı, alttakinden daha yüksek ise, alt tabaka **Enverziyon Başlangıç Noktası** olarak alınarak, enverziyon üst sınırı belirlenene kadar bu kontrol devam etmektedir. Ust tabaka sıcaklığı alt tabakadan daha düşük bulunduğu zaman, bu noktanın bir altındaki seviye **Enverziyonun Bitiş Noktası** olarak belirlenmektedir.

Eğer kalınlığı 45 m'den daha fazla olan bir enverziyon tabakası bulunmuş ise, **r1** değeri olarak 20 puan kayıt edilerek sonraki hesaplamalara geçilmekte, enverziyon yok ise veya enverziyon tabakasının kalınlığı 45 m'den daha az ise **r1=0** puan kayıt edilerek, program sonlandırılmaktadır.

r2 Hesabı : Bulunan enverziyonun üst tabakası ile alt tabakası arası sıcaklık farkı alınarak, aşağıda verilen sınıflandırmaya göre puanlandırılmaktadır.

$0.0 \leq dt < 1.0$	ise	**r2 = 0**
$1.0 \leq dt < 2.0$	ise	**r2 = 5**
$2.0 \leq dt < 3.0$	ise	**r2 = 10**
$3.0 \leq dt < 4.0$	ise	**r2 = 15**
$4.0 \leq dt < 5.0$	ise	**r2 = 20**
$5.0 \leq dt < 6.0$	ise	**r2 = 25**
$6.0 \leq dt < 8.0$	ise	**r2 = 30**
$8.0 \leq dt$	ise	**r2 = 35**

r3 Hesabı : Enverziyonun bulunduğu seviyelerdeki rüzgar hızlarından minimum rüzgar hızı bulunarak (V_{min}), aşağıda verilen sınıflandırmaya göre puanlandırılmaktadır.

$3.0 \leq V_{min}$	ise	**r3 = 5**
$1.5 \leq V_{min} < 3.0$	ise	**r3 = 10**
$V_{min} < 1.5$ m/s	ise	**r3 = 15**

r4 Hesabı : Enverziyonun yerden yüksekliği (h) hesaplanarak, aşağıda verilen sınıflandırmaya göre puanlandırılmaktadır.

$300 \text{ m} \leq h$	ise	**r4 = 0**
$150 \text{ m} \leq h < 300 \text{ m}$	ise	**r4 = 5**
$h \leq 150$ m	ise	**r4 = 10**

r5 Hesabı : Enverziyonun kalınlığı (d) hesaplanarak, aşağıda verilen sınıflandırmaya göre puanlandırılmaktadır.

$d \leq 150$ m	ise	**r5 = 5**
$150 \text{ m} \leq d < 250 \text{ m}$	ise	**r5 = 10**
$250 \text{ m} \leq d < 350 \text{ m}$	ise	**r5 = 15**
$350 \text{ m} \leq d$	ise	**r5 = 20**

II.2. Tahmin Sonuçlarının Değerlendirmesi

II.2.1. Tahmin Doğruluk Oranları

Yüksek atmosfer gözlemleri yapılan Adana, Ankara, Diyarbakır, Erzurum, Isparta, İstanbul, İzmir ve Samsun illeri için 2007-2008 kış dönemi (Eylül, Ekim, Kasım, Aralık, Ocak) boyunca üretilen tahmin sonuçları, aynı dönemde gözlemlenen radiosonde ölçümleri ve ECMWF analiz ürünleri ile karşılaştırılmıştır.

Toplam 90 günlük periyotta yapılan karşılaştırmalarda, hem gözlemin, hemde tahmin ve analiz değerlerinin bulunduğu günler seçilmiştir. Üç aylık bu dönemdeki toplam tahmin sayıları ile doğru tahmin oranları Tablo-1'de verilmiştir. İncelenen merkezlerin gerçek yükseklikleri ile modelin tanıdığı yükseklikler de aynı tabloda yer almaktadır.

Yapılan enverziyon tahminleri ile ECMWF analiz sonuçları arasında büyük oranda uyum olduğu görülmektedir. Tahminler ile radiosonde ölçümleri arasındaki uyum ise ECMWF analizlerine göre daha düşüktür. Tahminlerin ECMWF analiz sonuçlarına göre tutarlılığı % 85-98 aralığında gerçekleşirken, bu oran radiosonde ölçümlerine göre % 61-94 olarak bulunmuştur. Merkezlere göre ise, en yüksek tahmin tutarlılığı Diyarbakır'da gerçekleşmiştir.

Diğer taraftan 00 Z için yapılan tahminlerin, 12 Z için yapılan tahminlere göre daha tutarlı olduğu saptanmıştır. Detaylı tablo ve grafikler Ek-1'de verilmiştir.

Tablo-1. 00 Z ve 12 Z Tahmin Doğruluk Oranları

İSTASYON	Yükseklik (m)		Toplam Tahmin Sayısı	Doğru Tahmin Oranı			
				Radiosonde Ölçümlerine göre (%)		ECMWF Analiz Sonuçlarına göre (%)	
	Model	Gerçek		00 Z	*12 Z*	00 Z	*12 Z*
Adana	4	27	*137*	80	*91*	92	*98*
Ankara	1189	891	*140*	84	*90*	94	*88*
Diyarbakır	762	677	*144*	90	*94*	96	*98*
Erzurum	2113	1758	*137*	80	*91*	92	*98*
Isparta	1247	997	*141*	84	*80*	92	*93*
İstanbul	178	33	*135*	70	*61*	90	*85*
İzmir	170	29	*143*	74	*72*	94	*89*
Samsun	332	4	*140*	71	*72*	91	*86*

II.2.2. Verifikasyon

Yapılan tahminlerin verifikasyonu için öncelikle tahmin değerleri ile gözlemler arasındaki korelasyon katsayıları hesaplanmış, daha sonra bu değerler için Ortalama Standart Hatalar ve Ortalama Hata Kareleri Toplamının Karekökleri hesaplanmıştır.

Verifikasyon, yapılan tahminlerin gözlemlerle karşılaştırılarak doğruluk oranlarının tespit edilmesidir. Korelasyon katsayısı, bağımsız değişkenler arasındaki ilişkinin yönü ve büyüklüğünü belirten katsayıdır. Bu katsayı, (-1) ile (+1) arasında bir değer alır. Pozitif değerler doğrusal yönlü ilişkiyi; negatif değerler ise ters yönlü bir ilişkiyi belirtir. Korelasyon katsayısı 0 ise söz konusu değişkenler arasında herhangi bir ilişki yoktur.

Objektif verifikasyon ise, tahmin edilen herhangi bir parametrenin, gözlem değerleri ile kıyaslayarak, verifikasyon değerlerinin rakamsal olarak ifade edilmesidir.

Objektif verifikasyon için temel olarak aşağıdaki yöntemler kullanılmaktadır:

Ortalama Standart Hata (**ME**, Mean Error): Belirlenen periyotta tahminlerle gözlemler arasındaki farkların toplamının ortalaması.

$$ME = \frac{1}{n}\sum_{i=1}^{n}(f_i - o_i)$$

n = veri sayısı
f = tahmin verisi
o = gözlem verisi

Ortalama Hata Kareleri Toplamının Karekökü (**RMSE**, Root Mean Square Error): Belirlenen periyotta tahminlerle gözlemler arasındaki farkların karelerinin toplamının karekökü.

$$RMSE = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(f_i - o_i)^2}$$

n = veri sayısı
f = tahmin verisi
o = gözlem verisi

Hesaplanan değerlerin sıfıra yakınlığı o istasyon için yapılan tahminlerinin doğruluğunun arttığını göstermektedir.

Yüksek atmosfer gözlemi yapılan istasyonlar için elde edilen verifikasyon sonuçları Tablo-2.a (00 Z) ve Tablo-2.b (12 Z)'de verilmiştir.

00 Z için yapılan tahminler ile ECMWF analiz değerleri arasındaki korelasyon katsayısı 1'e çok yakın bulunmuştur. Radiosonde gözlemleri ile yapılan korelasyon katsayıları ise 0.337-0,751 aralığında elde edilmiştir. Korelasyon katsayılarını göz önünde bulundurarak, 00 Z için yapılan enverziyon tahminleri ile hem ECMWF analiz verileri hem de radiosonde ölçüm değerleri arasında pozitif yönde yüksek oranda ilişki olduğu, başka bir deyişle tahmin tutarlılıklarının yüksek olduğu sonucu ortaya çıkmaktadır.

Ortalama standart hata (ME) ve ortalama karekök hatası (RMSE) analizlerine göre elde edilen değerler, sıfıra yakın bulunmuştur. Bu analizler de yapılan tahminlerin tutarlılığının yüksek olduğunu göstermektedir.

00 Z için, iller bazında yapılan Tahmin - ECMWF Analiz ve Tahmin - Radiosonde Gözlemi karşılaştırmalarına ait grafikler Ek-2'de verilmiştir. Bu karşılaştırmalara ait verilerin bulunduğu tablolar ise Ek-4'te bulunmaktadır.

Tablo-2.a. 00 Z için Verifikasyon Sonuçları

İSTASYON	Korelasyon		Ort. Standart Hata (ME)		Ort. Karekök Hatası (RMSE)	
00 Z	**Analiz**	**Radio.**	**Analiz**	**Radio.**	**Analiz**	**Radio.**
Adana	0.976	0.751	0.03	0.29	0.57	1.73
Ankara	0.964	0.685	0.14	0.74	0.59	1.78
Diyarbakır	0.961	0.685	-0.10	0.27	0.55	1.83
Erzurum	0.976	0.751	0.03	0.29	0.57	1.73
Isparta	0.972	0.700	0.22	-0.32	0.57	2.06
İstanbul	0.976	0.556	0.10	-0.03	0.39	1.35
İzmir	0.974	0.674	0.11	1.35	0.51	2.17
Samsun	0.941	0.337	-0.03	0.56	0.77	2.20

12 Z için yapılan tahminler ile ECMWF analiz değerleri arasındaki korelasyon katsayısı 0.727-0.888 aralığında, radiosonde gözlemleri ile yapılan korelasyon katsayıları ise 0.007-0,562 aralığında elde edilmiştir. Korelasyon katsayılarını göz önünde bulundurarak, 12 Z için yapılan enverziyon tahminleri ile ECMWF analiz verileri arasında pozitif yönde iyi bir ilişki olduğu görülmektedir. Ancak, radiosonde gözlemleri ile yapılan tahminler arasındaki bir ilişkiden bahsetmek olanaklı değildir. Bu durum, 12 Z için yapılan tahminlerin tutarlılığının yeterli olmadığını göstermektedir.

Ortalama standart hata (ME) ve ortalama karekök hatası (RMSE) analizlerine göre elde edilen değerler, sıfıra çok yakın bulunmuştur. Objektif verifikasyon analizleri, yapılan tahminlerin tutarlılığının yüksek olduğunu göstermektedir.

12 Z için, iller bazında yapılan Tahmin - ECMWF Analiz ve Tahmin - Radiosonde Gözlemi karşılaştırmalarına ait grafikler Ek-3'te verilmiştir. Bu karşılaştırmalara ait verilerin bulunduğu tablolar ise Ek-5'te bulunmaktadır.

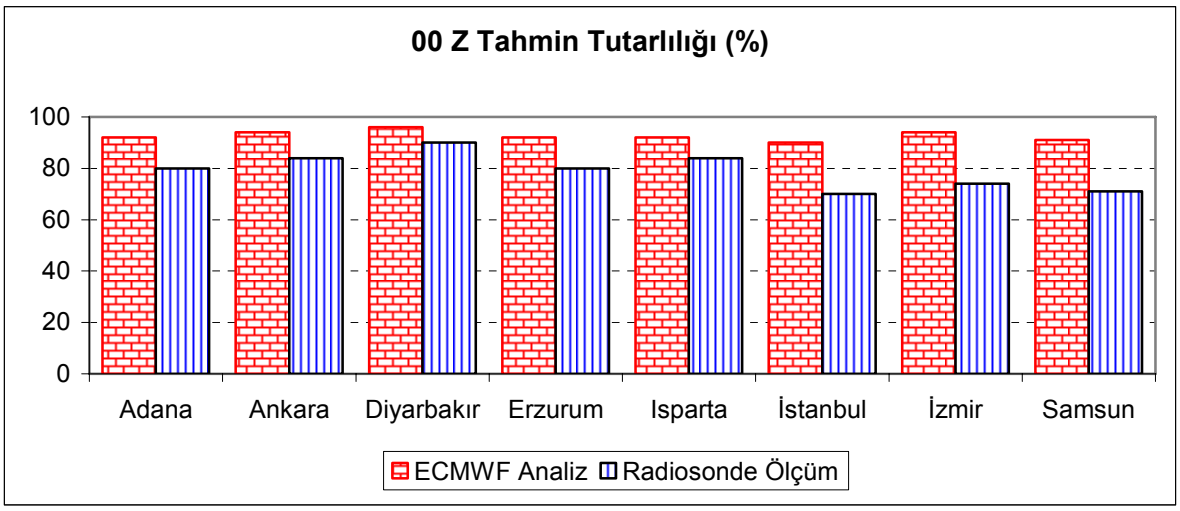
Tablo-2.b. 12 Z için Verifikasyon Sonuçları

İSTASYON	Korelasyon		Ort. Standart Hata (ME)		Ort. Karekök Hatası (RMSE)	
12 Z	**Analiz**	**Radio.**	**Analiz**	**Radio.**	**Analiz**	**Radio.**
Adana	0.727	0.007	-0.02	-0.03	0.14	0.26
Ankara	0.835	0.562	-0.23	-0.29	0.59	1.08
Diyarbakır	0.882	0.257	-0.01	-0.05	0.08	0.23
Erzurum	0.727	0.007	-0.02	-0.03	0.14	0.26
Isparta	0.888	0.254	-0.05	-0.17	0.20	0.72
İstanbul	0.836	0.225	0.05	-0.07	0.33	0.87
İzmir	0.861	0.373	-0.02	-0.05	0.24	0.53
Samsun	0.771	0.163	-0.10	-0.25	0.34	0.76

Ek-1 : Tahmin Doğruluk Oranları

00 Z Tahmin Doğruluk Oranları Tablosu

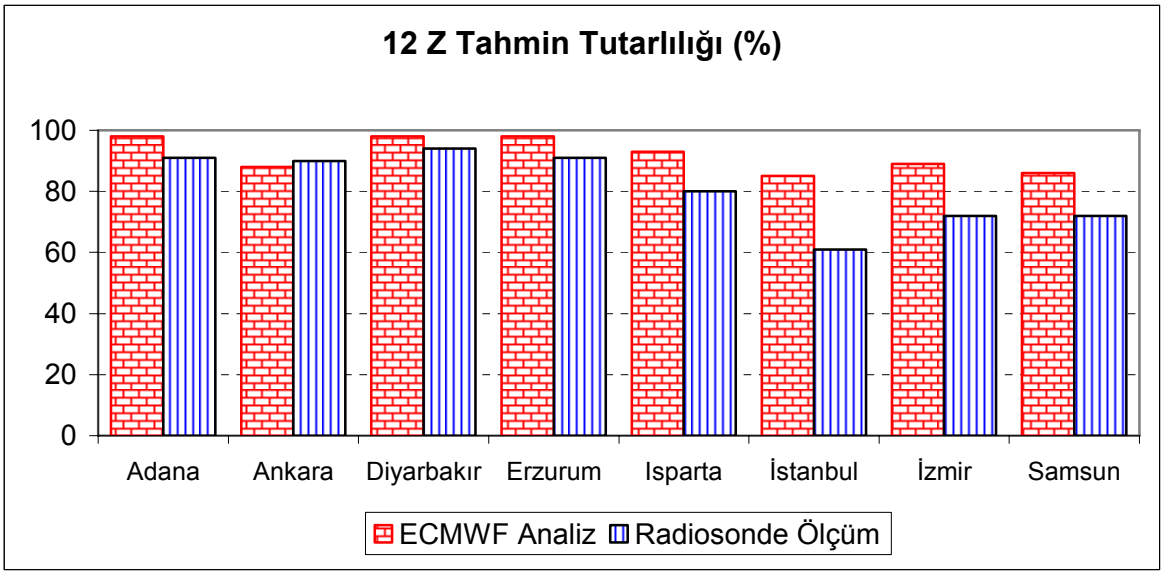
İSTASYON	Toplam Tahmin Sayısı	Doğru Tahmin Sayısı ve Oranı			
		ECMWF Analiz Sonuçlarına göre		Gerçekleşen Radiosonde Ölçümlerine göre	
		Toplam	%	Toplam	%
Adana	137	126	92	110	80
Ankara	140	132	94	118	84
Diyarbakır	144	139	96	129	90
Erzurum	137	126	92	110	80
Isparta	141	130	92	118	84
İstanbul	135	122	90	94	70
İzmir	143	135	94	106	74
Samsun	140	128	91	100	71



00 Z Tahmin Doğruluk Oranları Grafiği

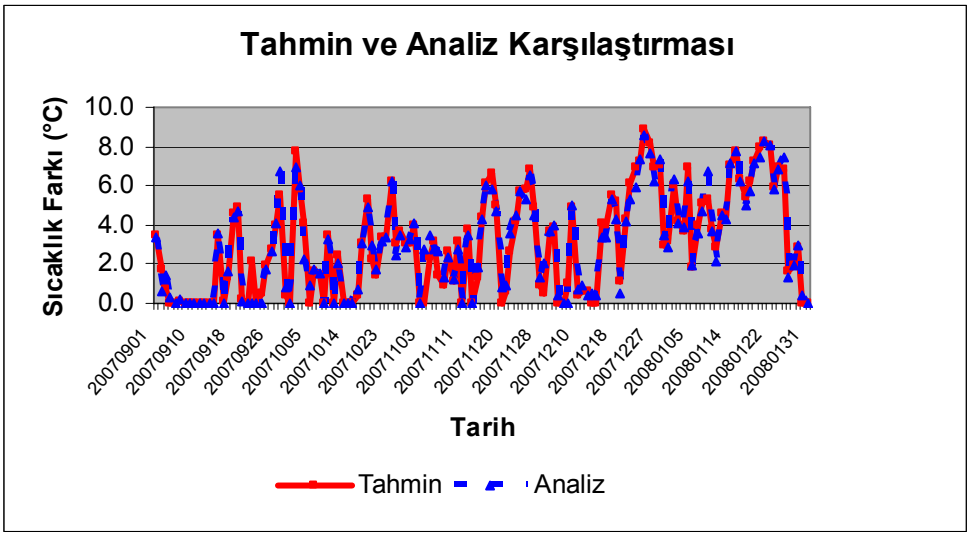
12 Z Tahmin Doğruluk Oranları Tablosu

İSTASYON	Toplam Tahmin Sayısı	Doğru Tahmin Sayısı ve Oranı			
		ECMWF Analiz Sonuçlarına göre		Gerçekleşen Radiosonde Ölçümlerine göre	
		Toplam	%	Toplam	%
Adana	136	134	98	124	91
Ankara	137	121	88	123	90
Diyarbakır	140	137	98	131	94
Erzurum	136	134	98	124	91
Isparta	139	129	93	111	80
İstanbul	137	116	85	84	61
İzmir	140	125	89	101	72
Samsun	139	120	86	100	72

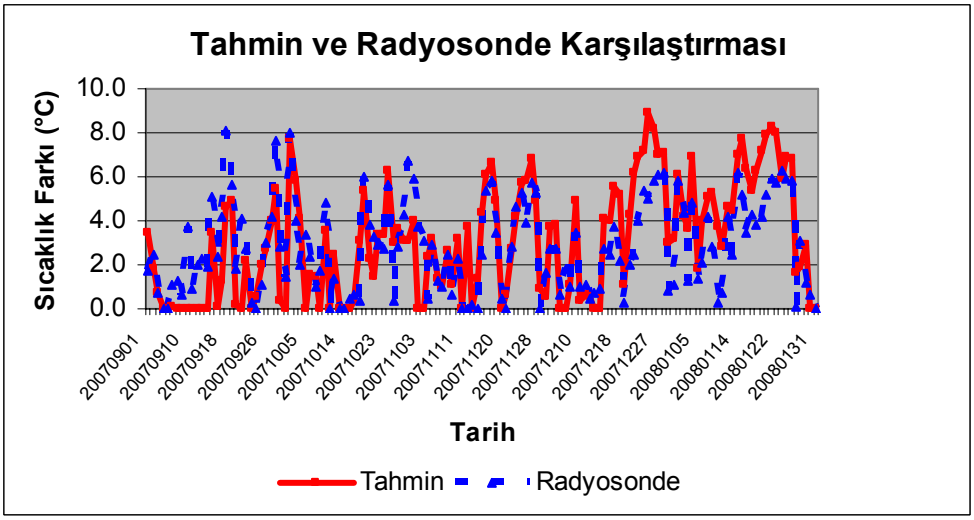


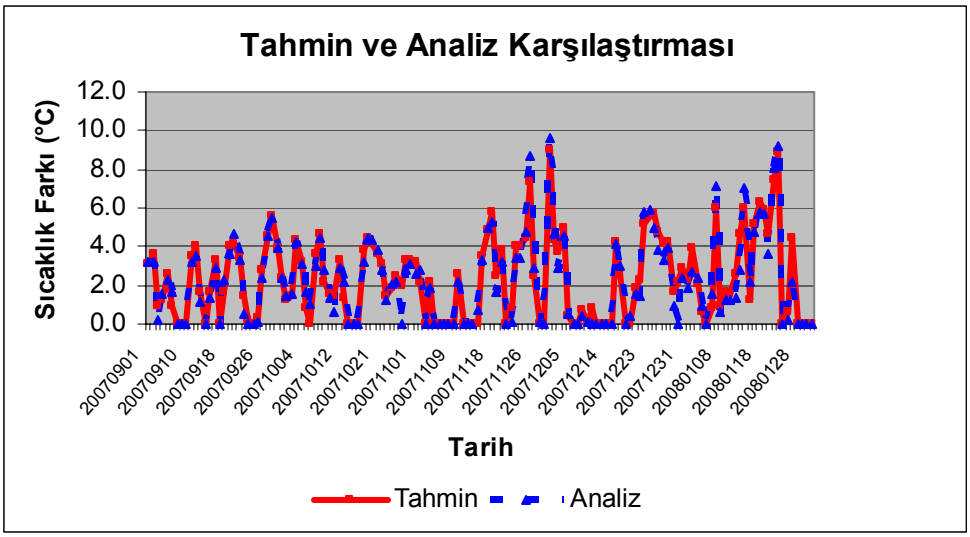
12 Z Tahmin Doğruluk Oranları Grafiği

Ek-2 : 00 Z “Tahmin - ECMWF Analiz” ve “Tahmin - Radiosonde Gözlemi” karşılaştırmalarına ait grafikler.

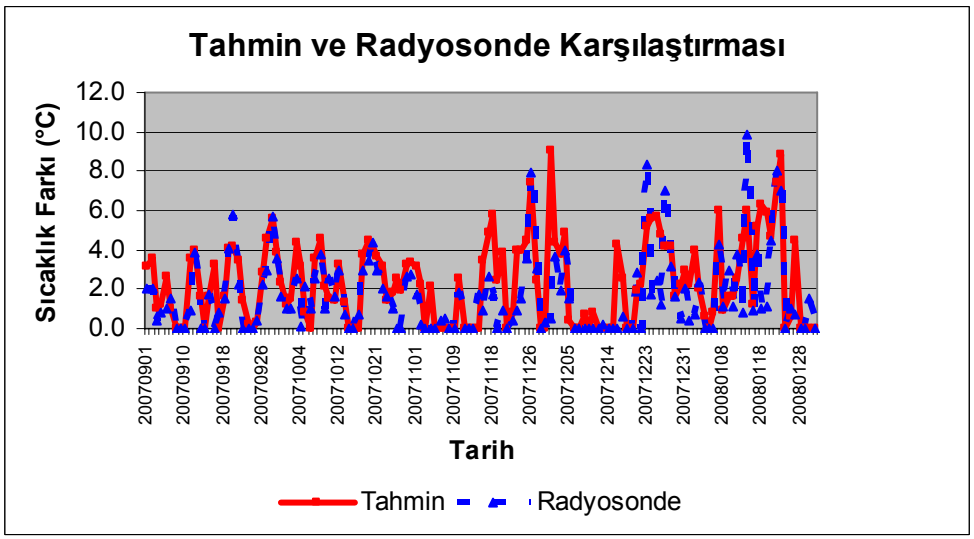


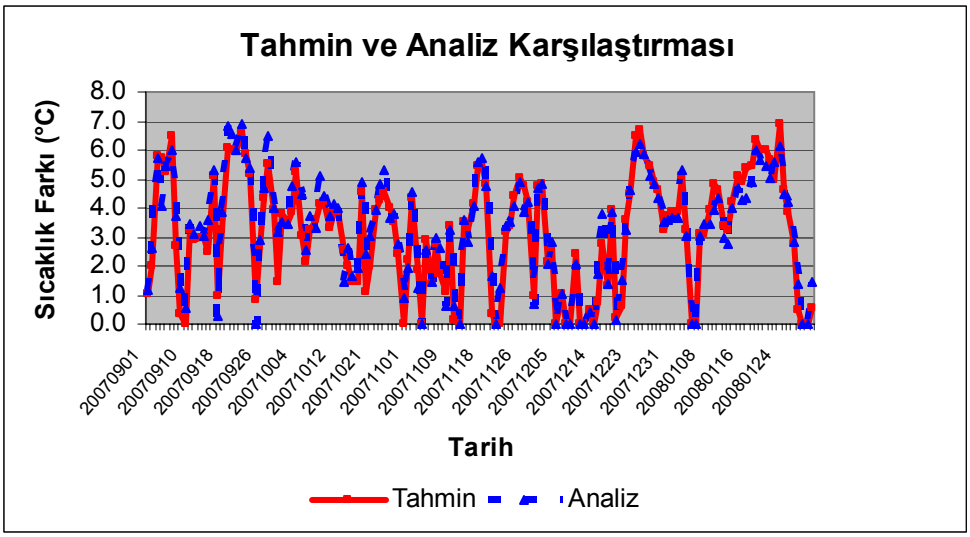
ADANA



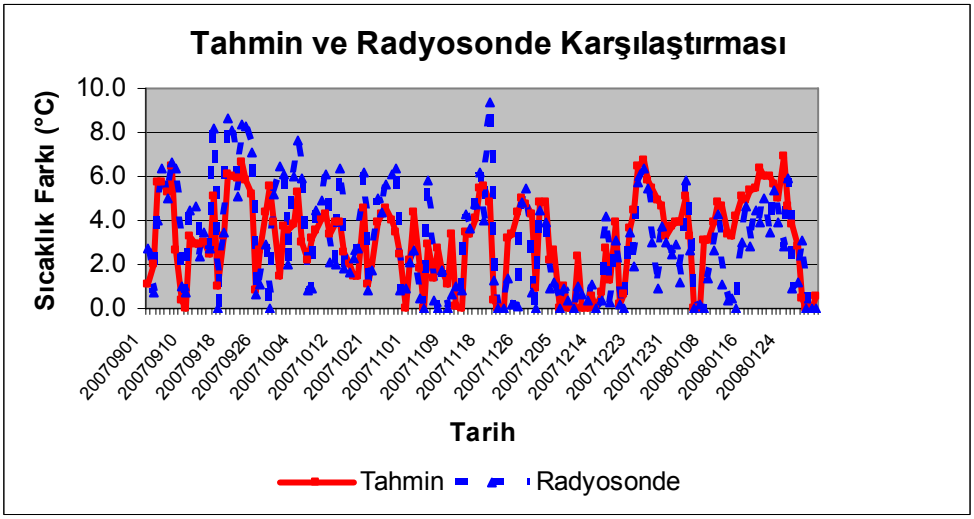

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080118
20080128
Tarih
Tahmin
Analiz

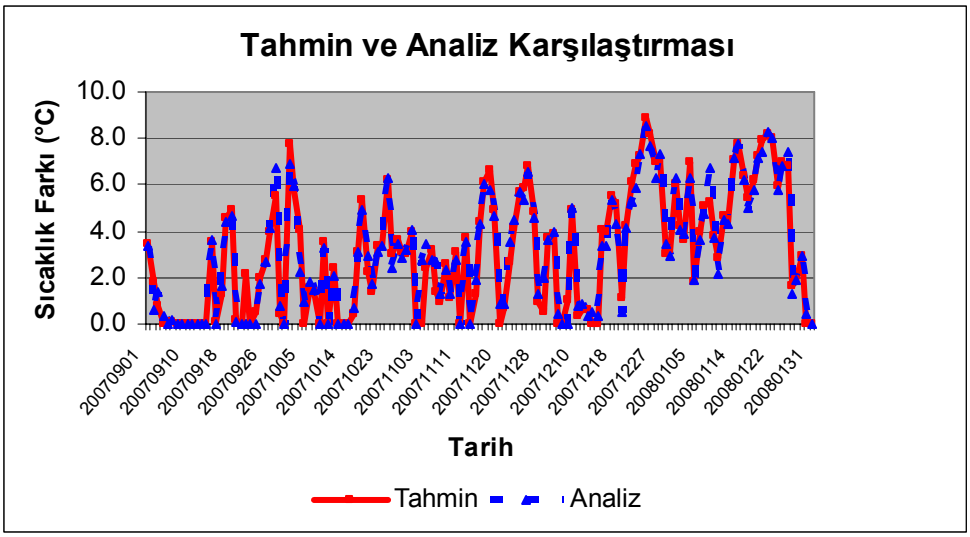
ANKARA


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080118
20080128
Tarih
Tahmin
Radyosonde

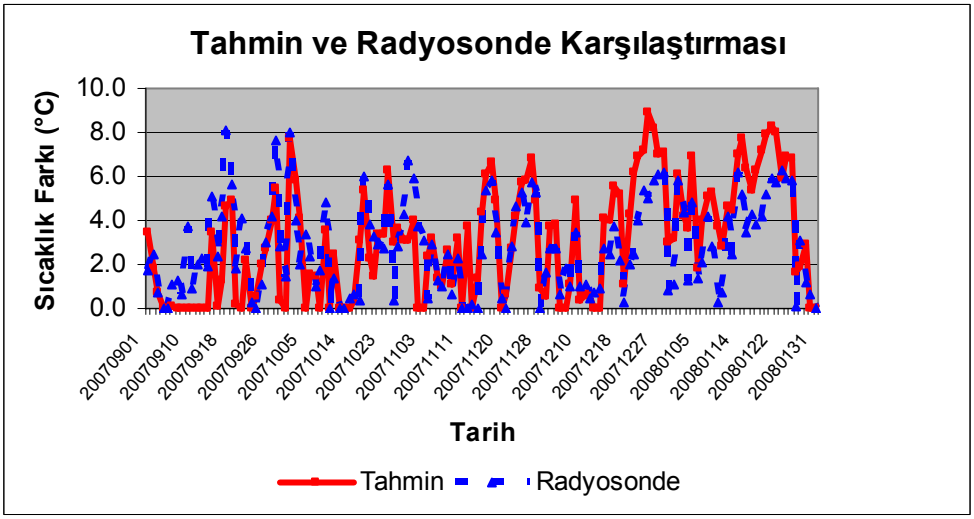

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080116
20080124
Tarih
Tahmin
Analiz

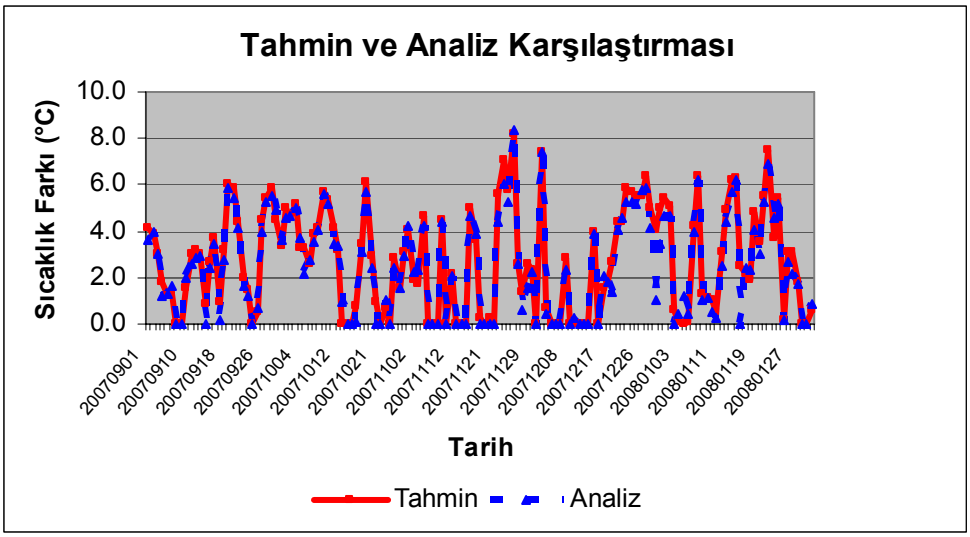
DİYARBAKIR


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080116
20080124
Tarih
Tahmin
Radyosonde

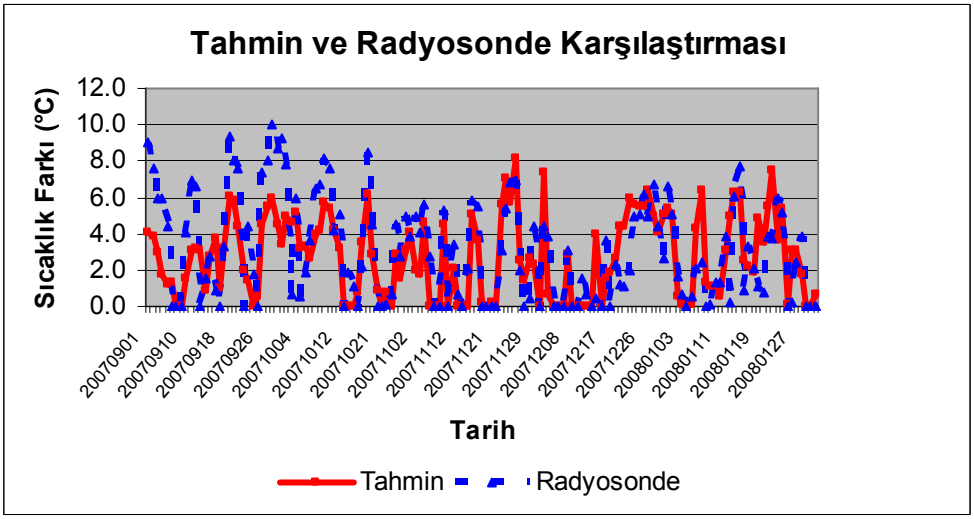

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071005
20071014
20071023
20071103
20071111
20071120
20071128
20071210
20071218
20071227
20080105
20080114
20080122
20080131
Tarih
Tahmin
Analiz

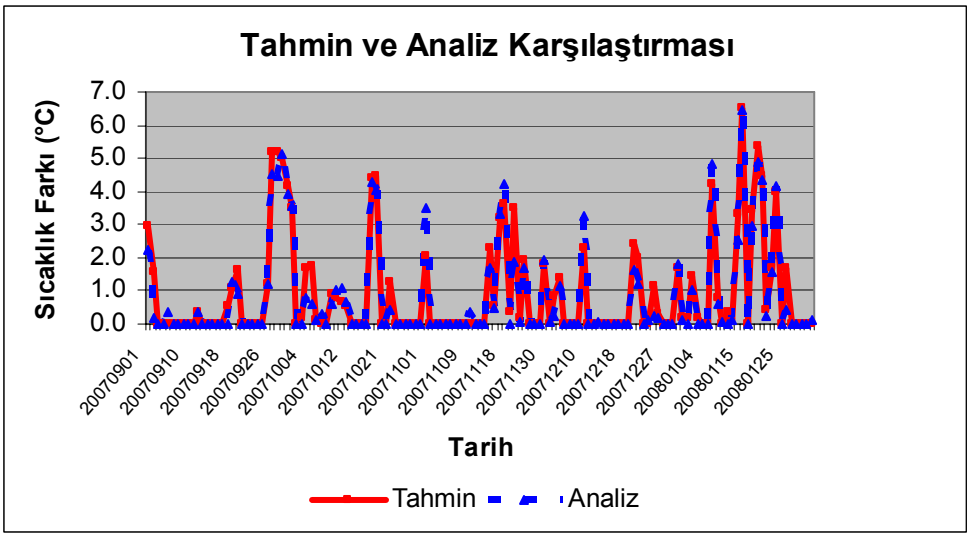
ERZURUM


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071005
20071014
20071023
20071103
20071111
20071120
20071128
20071210
20071218
20071227
20080105
20080114
20080122
20080131
Tarih
Tahmin
Radyosonde

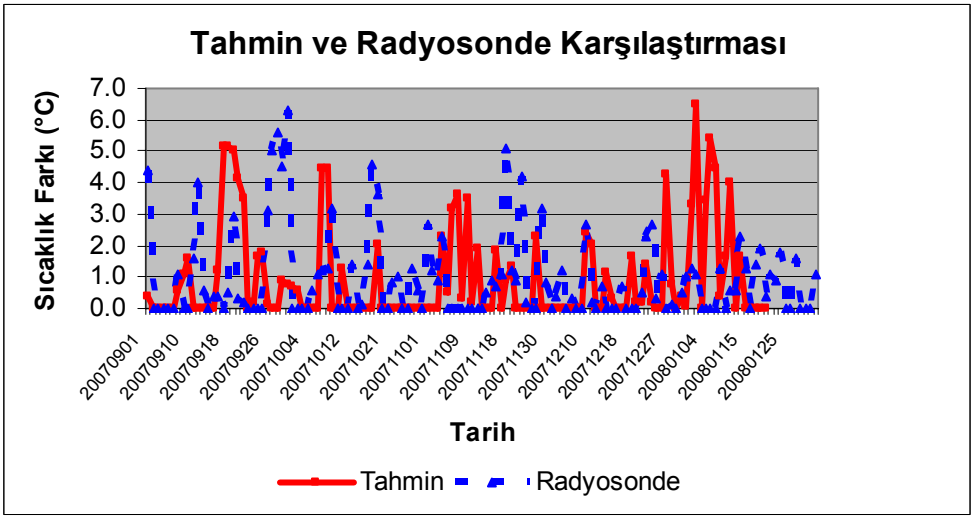

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071102
20071112
20071121
20071129
20071208
20071217
20071226
20080103
20080111
20080119
20080127
Tarih
Tahmin
Analiz

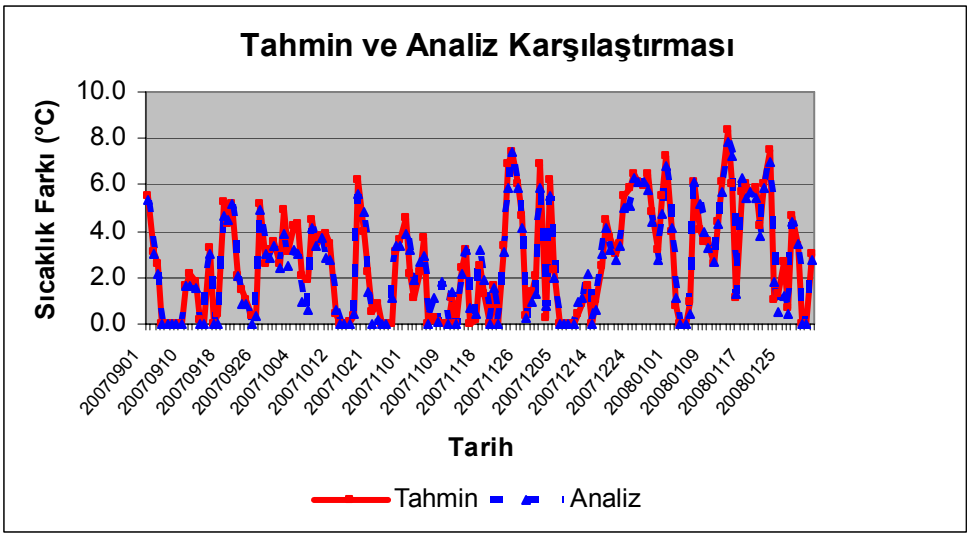
ISPARTA


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071102
20071112
20071121
20071129
20071208
20071217
20071226
20080103
20080111
20080119
20080127
Tarih
Tahmin
Radyosonde

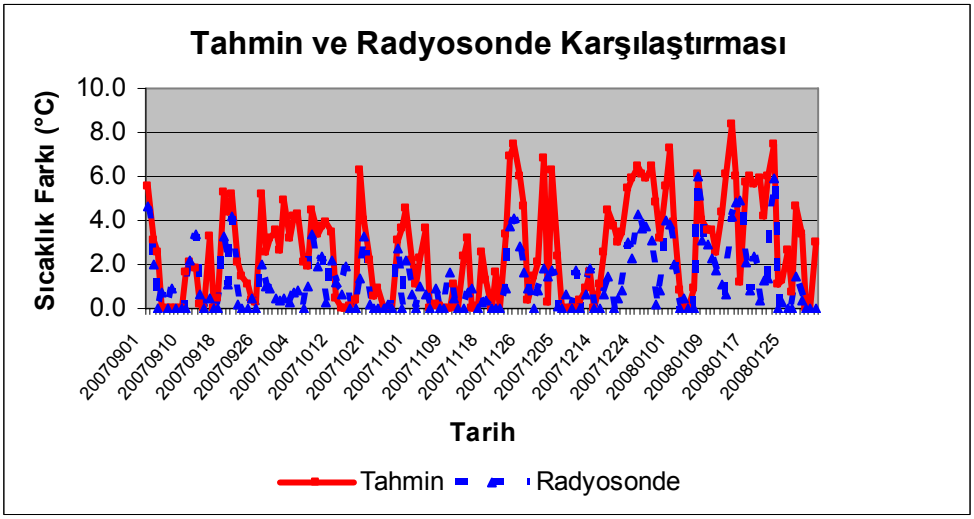

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071130
20071210
20071218
20071227
20080104
20080115
20080125
Tarih
Tahmin
Analiz

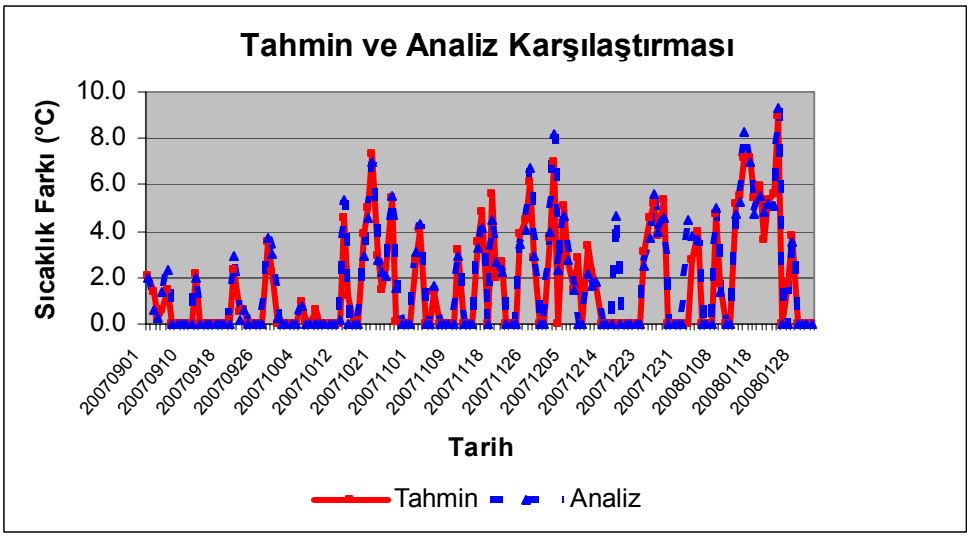
İSTANBUL


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071130
20071210
20071218
20071227
20080104
20080115
20080125
Tarih
Tahmin
Radyosonde

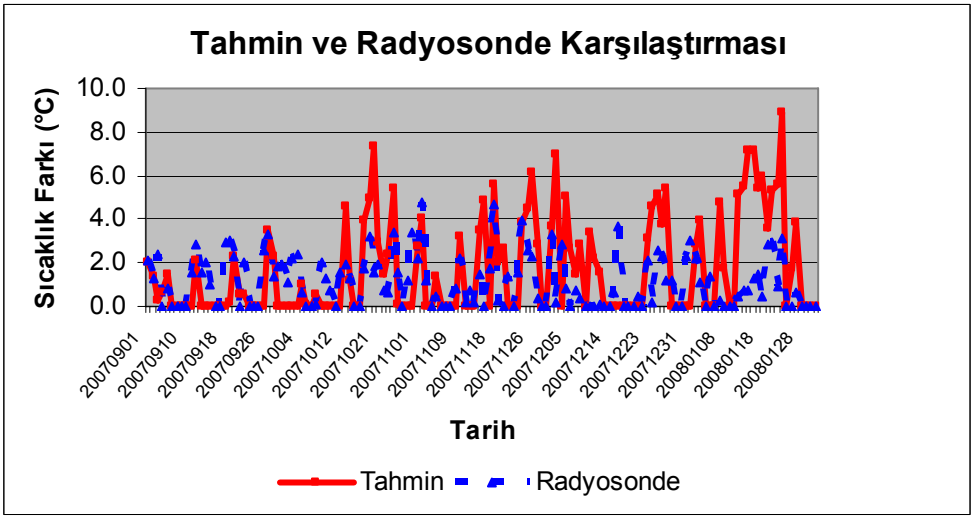

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071224
20080101
20080109
20080117
20080125
Tarih
Tahmin
Analiz

İZMİR

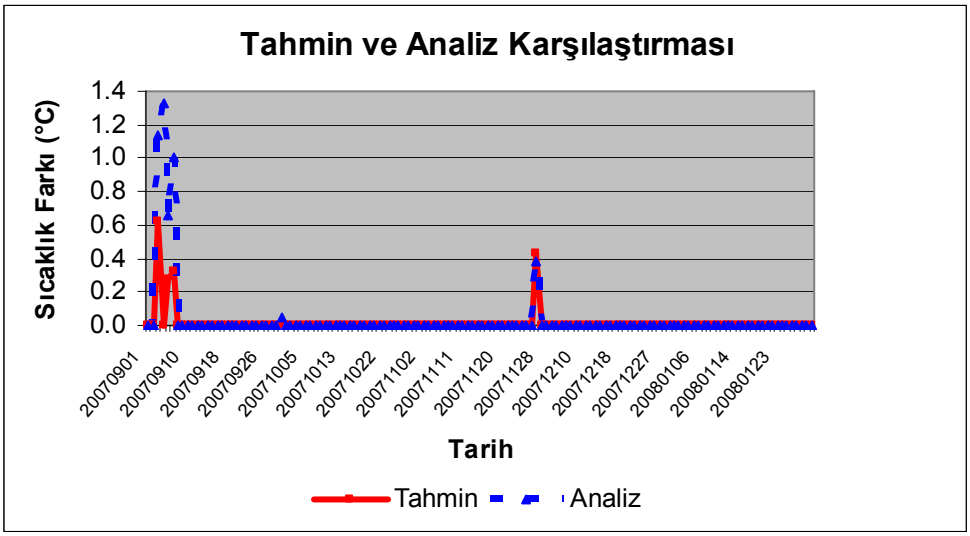

Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071224
20080101
20080109
20080117
20080125
Tarih
Tahmin
Radyosonde


Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080118
20080128
Tarih
Tahmin
Analiz

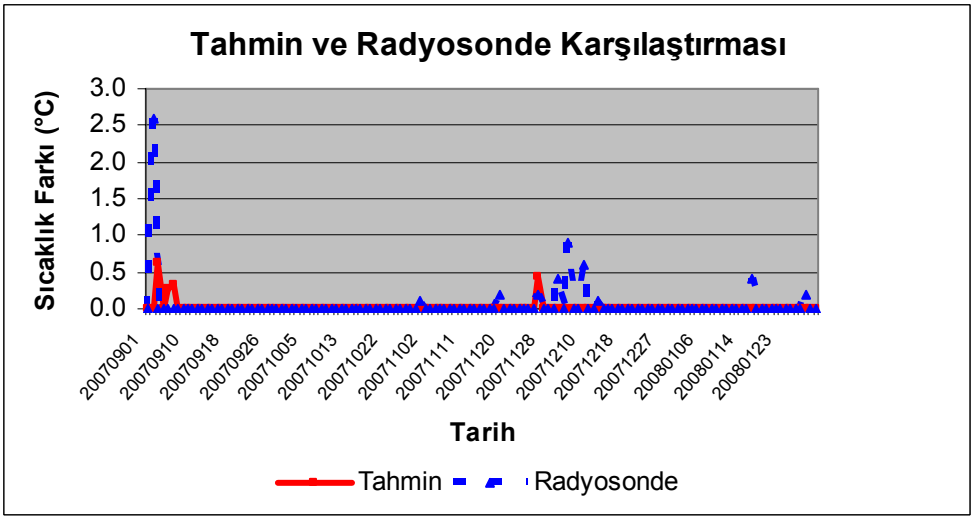
SAMSUN

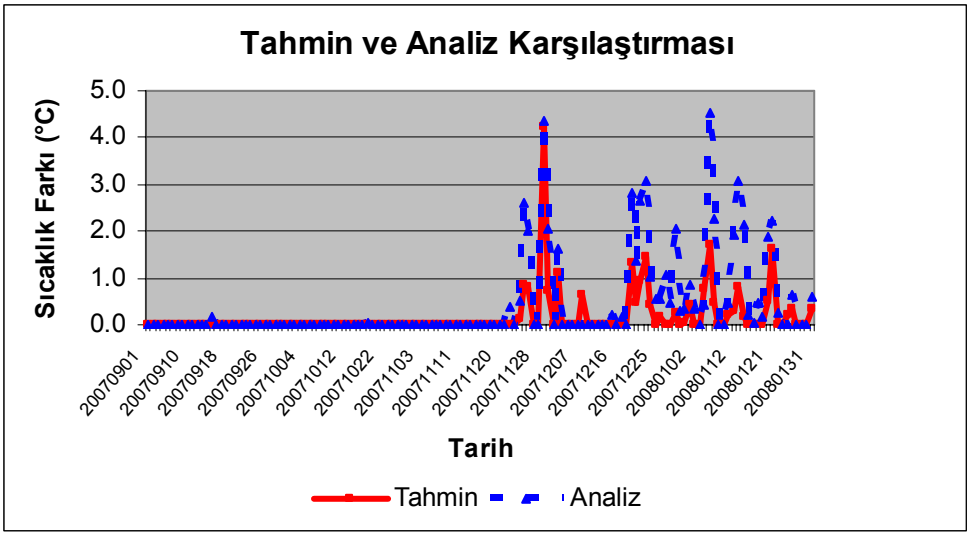

Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
10.0
8.0
6.0
4.0
2.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080118
20080128
Tarih
Tahmin
Radyosonde

Ek-3 : 12 Z “Tahmin - ECMWF Analiz” ve “Tahmin - Radiosonde Gözlemi” karşılaştırmalarına ait grafikler.

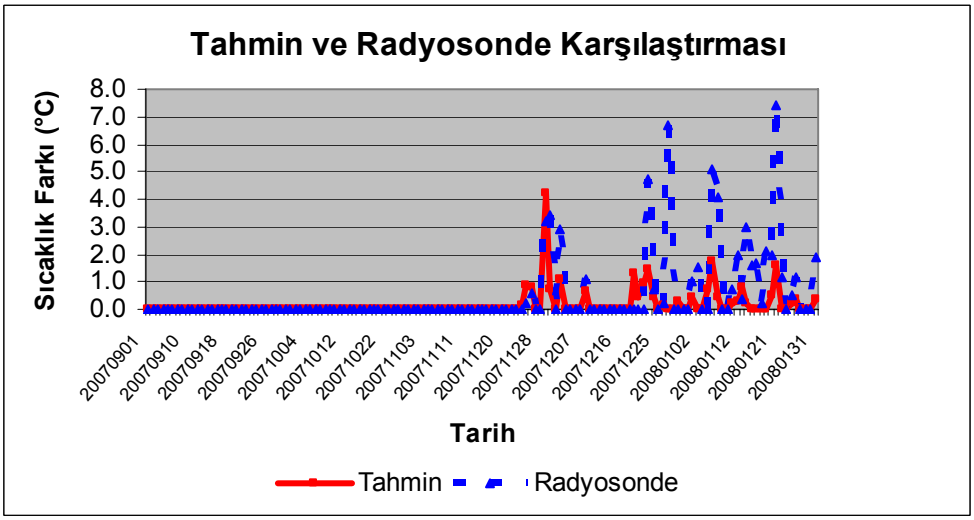


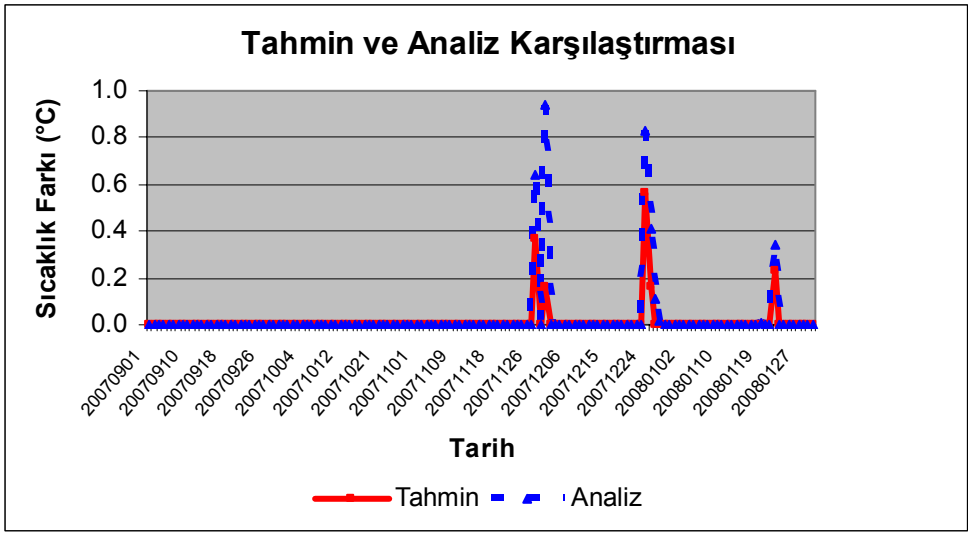
ADANA



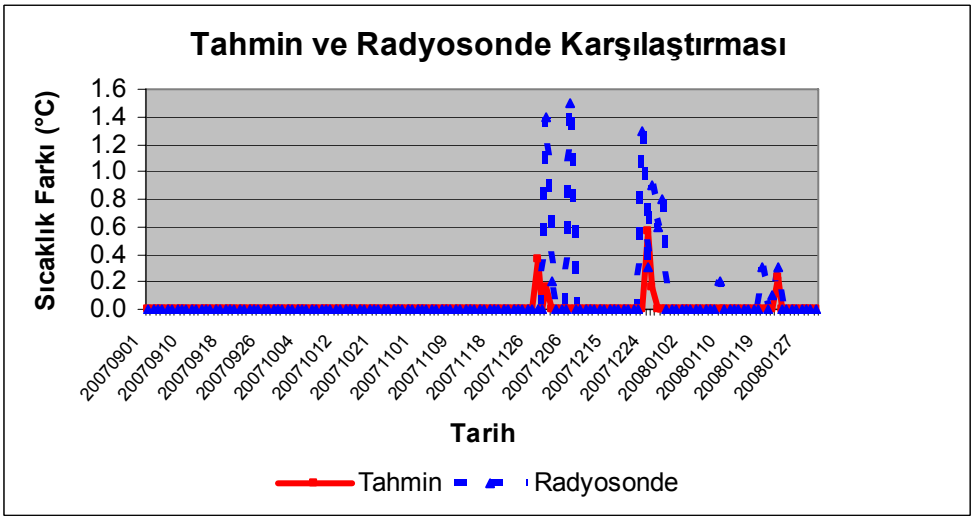

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071022
20071103
20071111
20071120
20071128
20071207
20071216
20071225
20080102
20080112
20080121
20080131
Tarih
Tahmin
Analiz

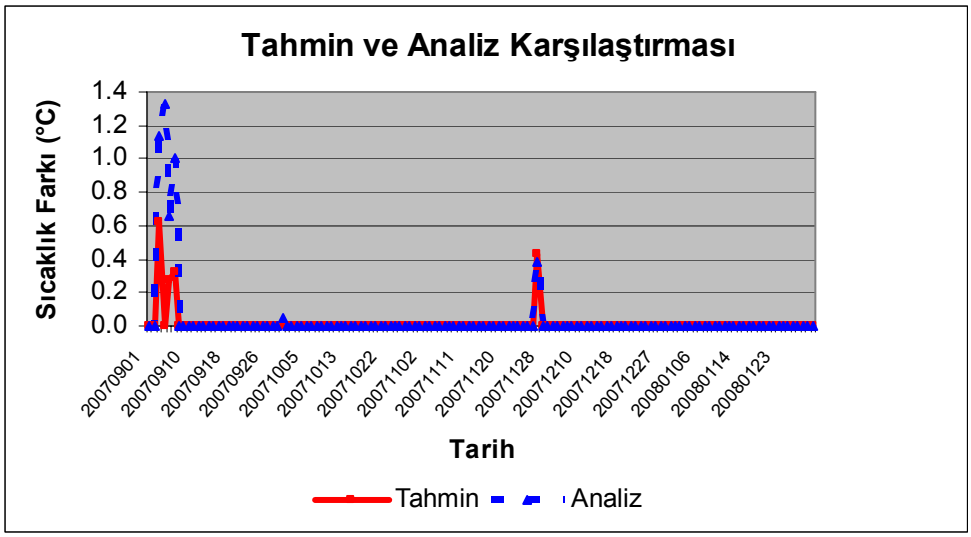
ANKARA


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071022
20071103
20071111
20071120
20071128
20071207
20071216
20071225
20080102
20080112
20080121
20080131
Tarih
Tahmin
Radyosonde

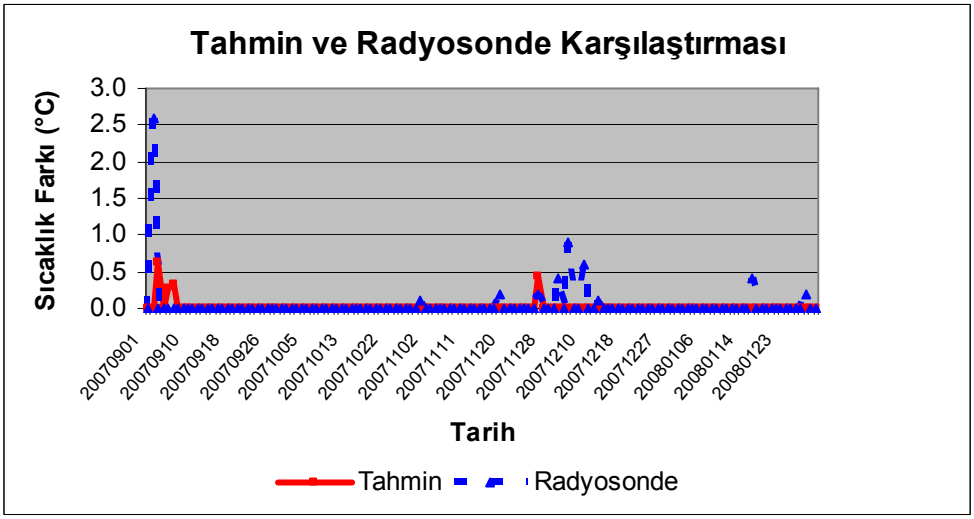

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
1.0
0.8
0.6
0.4
0.2
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071206
20071215
20071224
20080102
20080110
20080119
20080127
Tarih
Tahmin
Analiz

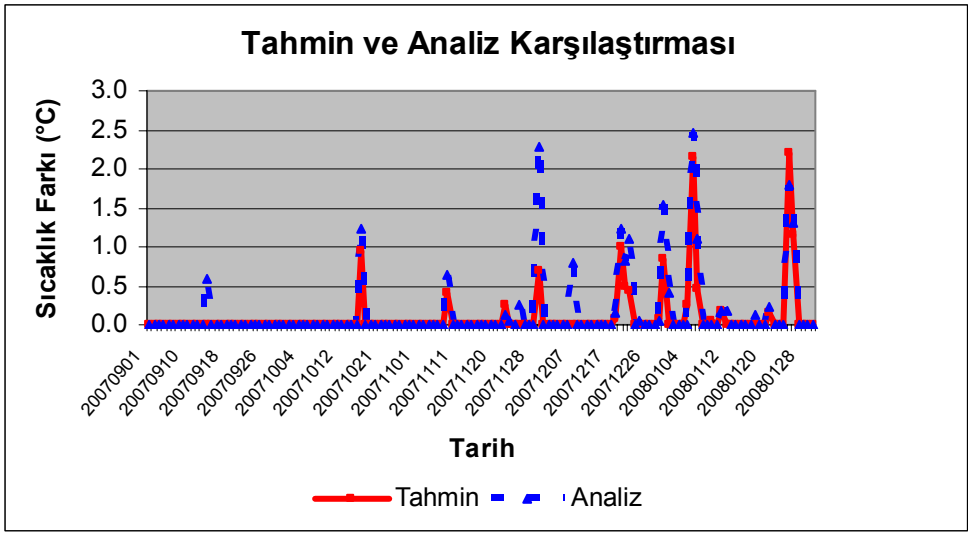
DİYARBAKIR


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071206
20071215
20071224
20080102
20080110
20080119
20080127
Tarih
Tahmin
Radyosonde

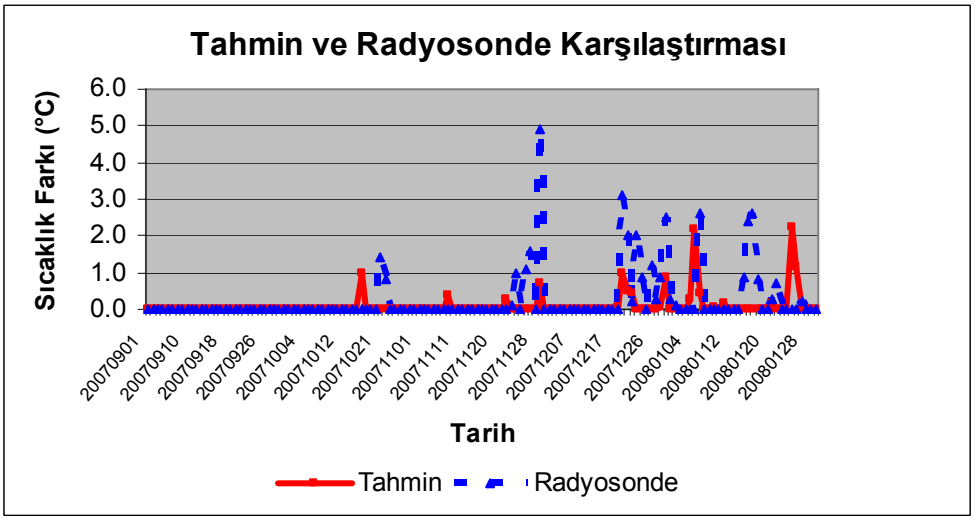

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
20070901
20070910
20070918
20070926
20071005
20071013
20071022
20071102
20071111
20071120
20071128
20071210
20071218
20071227
20080106
20080114
20080123
Tarih
Tahmin
Analiz

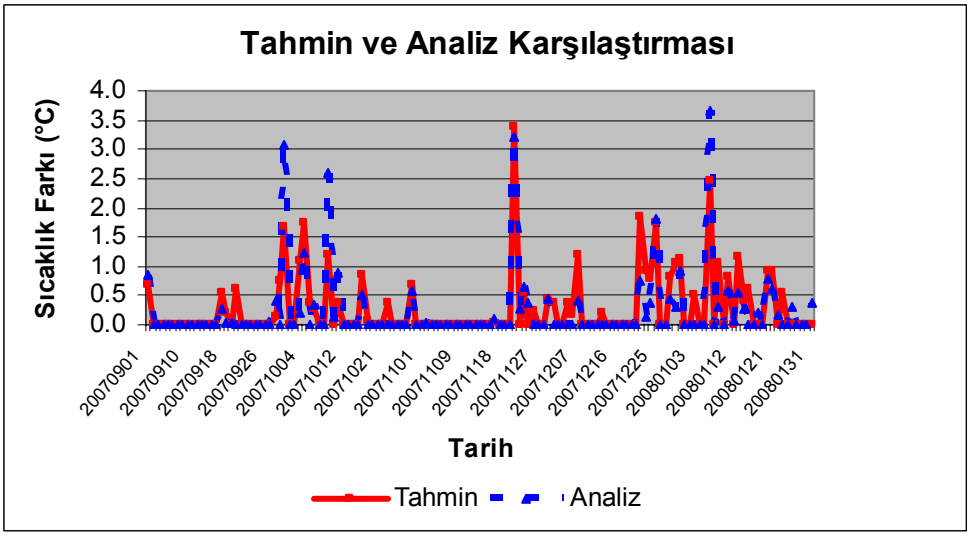
ERZURUM


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20070901
20070910
20070918
20070926
20071005
20071013
20071022
20071102
20071111
20071120
20071128
20071210
20071218
20071227
20080106
20080114
20080123
Tarih
Tahmin
Radyosonde

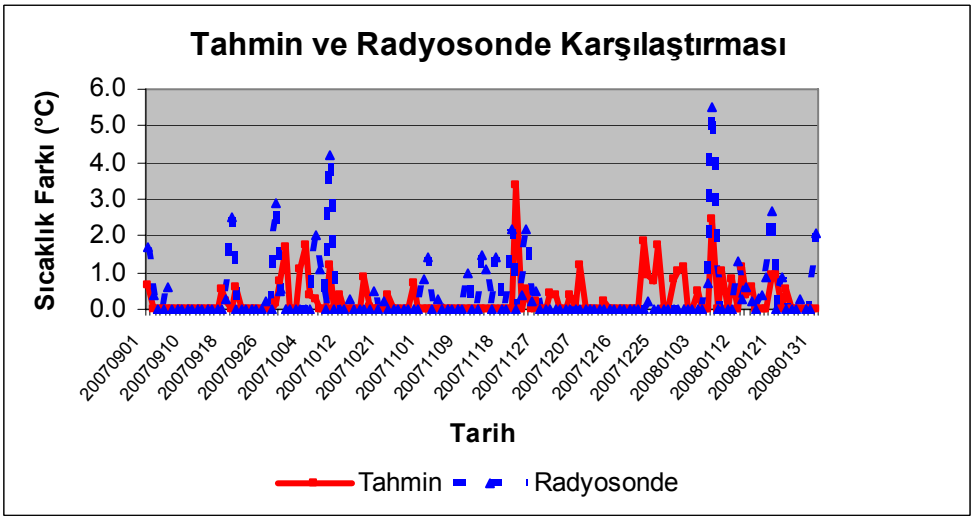

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071111
20071120
20071128
20071207
20071217
20071226
20080104
20080112
20080120
20080128
Tarih
Tahmin
Analiz

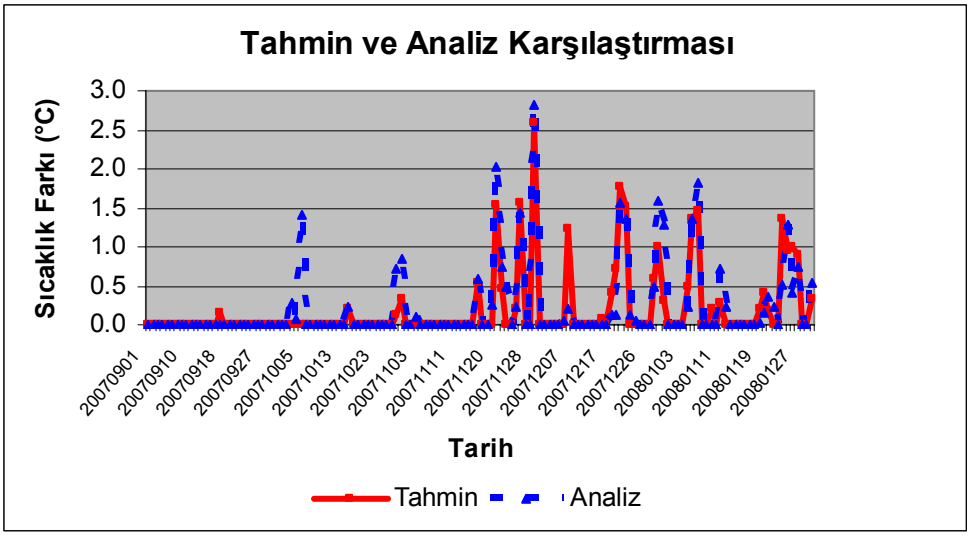
ISPARTA


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071111
20071120
20071128
20071207
20071217
20071226
20080104
20080112
20080120
20080128
Tarih
Tahmin
Radyosonde

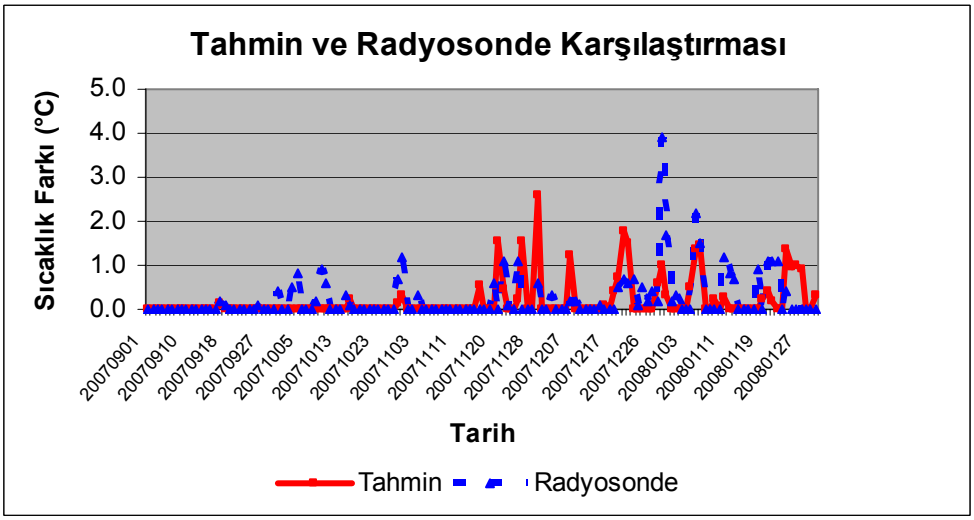

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071127
20071207
20071216
20071225
20080103
20080112
20080121
20080131
Tarih
Tahmin
Analiz

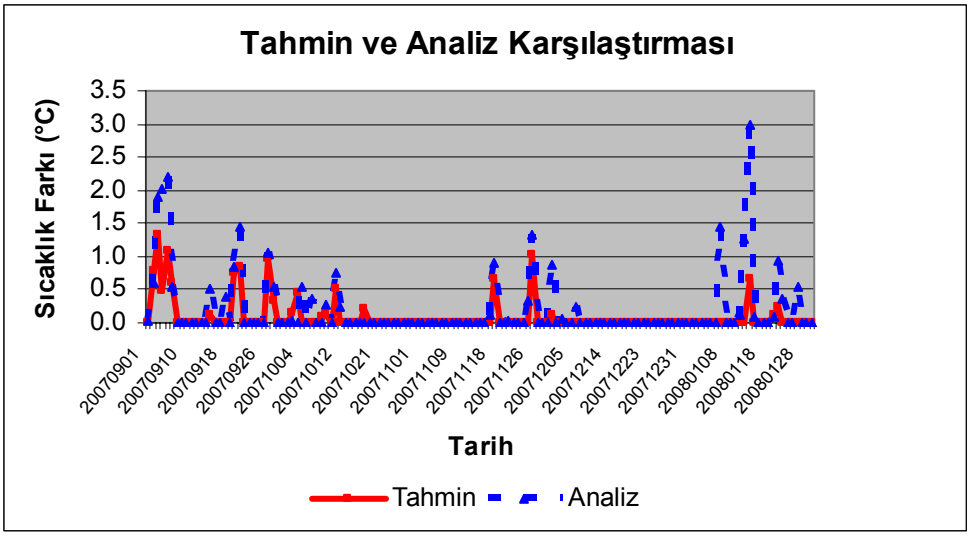
İSTANBUL


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071127
20071207
20071216
20071225
20080103
20080112
20080121
20080131
Tarih
Tahmin
Radyosonde

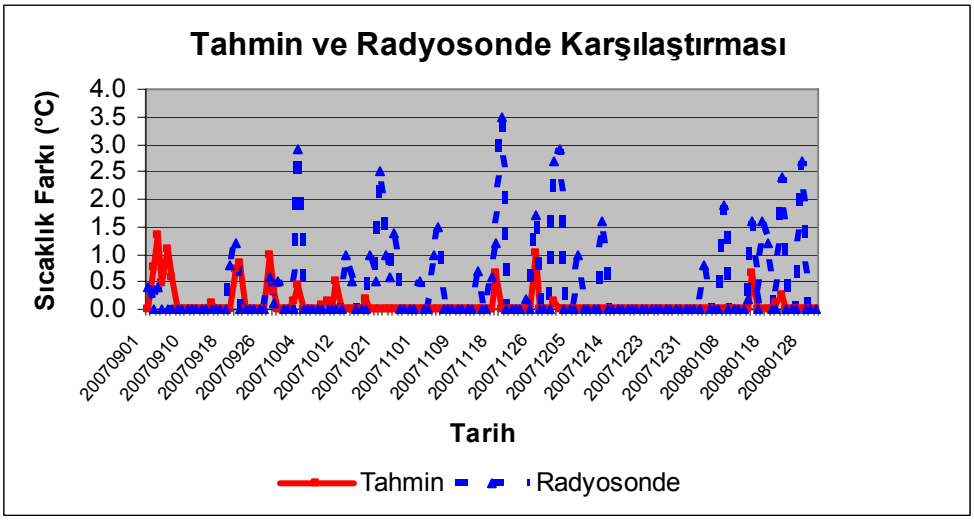

Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20070901
20070910
20070918
20070927
20071005
20071013
20071023
20071103
20071111
20071120
20071128
20071207
20071217
20071226
20080103
20080111
20080119
20080127
Tarih
Tahmin
Analiz

İZMİR


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
5.0
4.0
3.0
2.0
1.0
0.0
20070901
20070910
20070918
20070927
20071005
20071013
20071023
20071103
20071111
20071120
20071128
20071207
20071217
20071226
20080103
20080111
20080119
20080127
Tarih
Tahmin
Radyosonde


Tahmin ve Analiz Karşılaştırması
Sıcaklık Farkı (°C)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080118
20080128
Tarih
Tahmin
Analiz

SAMSUN


Tahmin ve Radyosonde Karşılaştırması
Sıcaklık Farkı (°C)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
20070901
20070910
20070918
20070926
20071004
20071012
20071021
20071101
20071109
20071118
20071126
20071205
20071214
20071223
20071231
20080108
20080118
20080128
Tarih
Tahmin
Radyosonde

Ek-4 : 00 Z “Tahmin - ECMWF Analiz” ve “Tahmin - Radiosonde Gözlemi” karşılaştırma tabloları

	Adana				Ankara				Diyarbakır				Erzurum			
		dT	dT	dT		dT	dT	dT		dT	dT	dT		dT	dT	dT
	Tarih	Thm	Anl	Radio	Tarih	Thm	Anl	Radio	Tarih	Thm	Anl	Radio	Tarih	Thm	Anl	Radio
1	20070901	3.4	3.3	1.7	20070901	3.1	3.2	2.0	20070901	1.1	1.2	2.7	20070901	3.4	3.3	1.7
2	20070902	1.8	0.6	2.5	20070902	3.6	3.2	2.0	20070902	2.0	2.6	0.7	20070902	1.8	0.6	2.5
3	20070903	0.7	1.4	0.7	20070903	1.0	0.3	0.4	20070903	5.8	5.7	4.0	20070903	0.7	1.4	0.7
4	20070904	0.0	0.4	0.0	20070904	1.2	1.5	0.8	20070904	5.7	4.1	6.4	20070904	0.0	0.4	0.0
5	20070906	0.0	0.0	0.0	20070906	2.6	2.2	1.0	20070906	5.2	5.5	5.0	20070906	0.0	0.0	0.0
6	20070907	0.1	0.2	1.1	20070907	1.0	1.6	1.5	20070907	6.5	6.0	6.6	20070907	0.1	0.2	1.1
7	20070908	0.0	0.0	1.3	20070908	0.0	0.0	0.0	20070908	2.7	3.7	6.4	20070908	0.0	0.0	1.3
8	20070909	0.0	0.0	0.6	20070909	0.0	0.0	0.0	20070909	0.3	1.2	1.0	20070909	0.0	0.0	0.6
9	20070910	0.0	0.0	3.7	20070910	0.0	0.0	0.0	20070910	0.0	0.5	0.7	20070910	0.0	0.0	3.7
10	20070911	0.0	0.0	0.9	20070911	3.6	3.2	0.9	20070911	3.2	3.4	4.5	20070911	0.0	0.0	0.9
11	20070912	0.0	0.0	2.0	20070912	4.0	3.5	3.9	20070912	2.9	3.1	4.6	20070912	0.0	0.0	2.0
12	20070913	0.0	0.0	2.3	20070913	1.6	1.1	0.0	20070913	2.9	3.4	2.4	20070913	0.0	0.0	2.3
13	20070914	0.0	0.0	1.9	20070914	0.0	0.0	0.0	20070914	3.0	3.0	3.5	20070914	0.0	0.0	1.9
14	20070915	3.5	3.6	5.1	20070915	1.6	1.3	1.7	20070915	2.5	3.6	2.7	20070915	3.5	3.6	5.1
15	20070916	0.1	0.0	2.4	20070916	3.3	2.9	0.0	20070916	5.1	5.3	8.2	20070916	0.1	0.0	2.4
16	20070917	1.3	1.6	4.2	20070917	0.0	0.0	0.8	20070917	1.0	0.3	0.0	20070917	1.3	1.6	4.2
17	20070918	4.6	4.4	8.1	20070918	1.6	2.3	1.5	20070918	3.3	3.9	3.5	20070918	4.6	4.4	8.1
18	20070919	4.9	4.7	5.6	20070919	4.1	3.6	4.1	20070919	6.1	6.8	8.6	20070919	4.9	4.7	5.6
19	20070920	0.2	0.1	1.8	20070920	4.2	4.6	5.8	20070920	6.0	6.6	8.1	20070920	0.2	0.1	1.8
20	20070921	0.0	0.0	4.1	20070921	3.4	3.3	2.2	20070921	5.9	6.0	5.1	20070921	0.0	0.0	4.1
21	20070922	2.2	0.0	2.7	20070922	1.4	0.5	0.0	20070922	6.6	6.9	8.4	20070922	2.2	0.0	2.7
22	20070923	0.0	0.0	0.3	20070923	0.2	0.0	0.0	20070923	5.8	5.7	8.3	20070923	0.0	0.0	0.3
23	20070924	0.5	0.0	0.0	20070924	0.0	0.0	0.0	20070924	5.1	5.4	7.1	20070924	0.5	0.0	0.0
24	20070925	2.0	1.7	1.1	20070925	0.3	0.1	0.4	20070925	0.8	0.0	0.6	20070925	2.0	1.7	1.1
25	20070926	2.8	2.6	3.0	20070926	2.8	2.4	2.2	20070926	2.7	2.9	1.1	20070926	2.8	2.6	3.0
26	20070927	4.0	4.1	4.2	20070927	4.6	4.5	3.0	20070927	4.3	4.7	2.9	20070927	4.0	4.1	4.2
27	20070928	5.5	6.7	7.6	20070928	5.6	5.5	5.7	20070928	5.5	6.5	0.0	20070928	5.5	6.7	7.6
28	20070929	0.4	0.8	2.8	20070929	3.9	3.9	3.6	20070929	3.9	4.0	5.2	20070929	0.4	0.8	2.8
29	20071001	0.0	0.0	1.5	20070930	2.4	2.4	1.6	20070930	1.5	3.2	6.5	20071001	0.0	0.0	1.5
30	20071002	7.8	6.9	8.0	20071001	1.2	1.5	1.0	20071001	3.8	3.5	6.1	20071002	7.8	6.9	8.0
31	20071003	5.8	6.0	4.0	20071002	1.5	1.6	1.0	20071002	3.6	3.4	2.0	20071003	5.8	6.0	4.0
32	20071004	4.1	2.2	2.0	20071003	4.4	4.3	2.5	20071003	3.8	4.8	6.0	20071004	4.1	2.2	2.0
33	20071005	0.0	0.9	3.4	20071004	3.2	3.1	0.1	20071004	5.3	5.6	7.6	20071005	0.0	0.9	3.4
34	20071006	1.6	1.8	2.4	20071005	0.8	1.6	2.1	20071005	3.0	4.5	5.9	20071006	1.6	1.8	2.4
35	20071007	1.4	1.5	1.0	20071006	0.0	1.0	1.0	20071006	2.2	2.5	0.8	20071007	1.4	1.5	1.0
36	20071008	0.0	0.0	1.7	20071007	3.6	3.1	2.5	20071007	3.2	3.8	0.9	20071008	0.0	0.0	1.7
37	20071010	3.5	3.2	4.8	20071008	4.6	4.4	3.8	20071008	3.6	3.3	4.5	20071010	3.5	3.2	4.8
38	20071011	0.0	0.0	0.0	20071009	2.2	2.8	1.0	20071009	4.1	5.1	4.9	20071011	0.0	0.0	0.0
39	20071012	2.4	2.1	1.4	20071010	1.5	1.3	2.5	20071010	4.2	4.4	6.1	20071012	2.4	2.1	1.4
40	20071013	0.0	0.0	0.0	20071011	1.5	0.6	1.6	20071011	3.3	3.8	2.1	20071013	0.0	0.0	0.0
41	20071014	0.0	0.0	0.0	20071012	3.3	2.9	3.0	20071012	3.9	4.1	2.0	20071014	0.0	0.0	0.0
42	20071015	0.0	0.0	0.5	20071013	1.3	2.2	0.7	20071013	3.9	4.0	6.4	20071015	0.0	0.0	0.5
43	20071016	0.4	0.7	0.6	20071014	0.0	0.0	0.0	20071014	2.6	1.5	1.8	20071016	0.4	0.7	0.6
44	20071018	3.1	3.1	0.4	20071015	0.0	0.0	0.0	20071015	2.0	2.7	1.6	20071018	3.1	3.1	0.4
45	20071019	5.3	4.9	6.0	20071016	0.0	0.0	0.7	20071016	1.5	1.7	2.3	20071019	5.3	4.9	6.0
46	20071020	2.2	3.0	3.8	20071018	3.8	3.3	2.9	20071018	1.5	1.9	2.7	20071020	2.2	3.0	3.8
47	20071021	1.4	1.7	3.3	20071019	4.5	4.4	3.5	20071019	4.6	4.9	6.2	20071021	1.4	1.7	3.3
48	20071022	3.4	3.1	2.9	20071020	4.2	4.3	4.4	20071020	1.1	2.4	0.8	20071022	3.4	3.1	2.9
49	20071023	3.3	3.3	2.7	20071021	3.7	3.9	3.0	20071021	2.0	3.0	1.7	20071023	3.3	3.3	2.7
50	20071024	6.2	6.3	5.6	20071022	3.2	2.8	2.0	20071022	3.9	3.9	5.0	20071024	6.2	6.3	5.6
51	20071025	3.0	2.4	0.4	20071023	1.5	1.2	1.6	20071023	4.3	4.8	4.4	20071025	3.0	2.4	0.4
52	20071026	3.6	3.5	2.8	20071024	1.9	2.0	1.0	20071024	4.5	5.3	5.6	20071026	3.6	3.5	2.8
53	20071027	3.1	2.8	4.3	20071025	2.5	2.2	0.0	20071025	4.0	3.6	6.1	20071027	3.1	2.8	4.3
54	20071028	3.1	3.2	6.7	20071026	2.0	0.0	0.0	20071026	3.5	3.8	6.4	20071028	3.1	3.2	6.7

55	20071101	4.0	4.1	5.9		20071027	3.3	2.8	2.6		20071027	2.4	2.8	0.8		20071101	4.0	4.1	5.9
56	20071102	0.0	0.0	3.7		20071028	3.3	3.1	2.7		20071028	0.0	0.9	0.9		20071102	0.0	0.0	3.7
57	20071103	0.0	2.7	3.1		20071101	3.2	2.6	1.7		20071101	2.2	1.9	2.1		20071103	0.0	2.7	3.1
58	20071104	2.4	3.5	0.5		20071102	2.2	2.8	0.2		20071102	4.3	4.5	2.6		20071104	2.4	3.5	0.5
59	20071105	3.2	2.8	2.9		20071103	0.0	0.0	0.0		20071103	1.9	1.3	0.5		20071105	3.2	2.8	2.9
60	20071106	1.4	2.6	1.3		20071104	2.2	1.9	0.0		20071104	0.0	0.0	0.0		20071106	1.4	2.6	1.3
61	20071107	1.0	1.3	1.0		20071105	0.0	0.0	0.0		20071105	2.9	2.5	5.8		20071107	1.0	1.3	1.0
62	20071108	2.6	2.3	2.5		20071106	0.0	0.0	0.4		20071106	1.4	1.4	0.4		20071108	2.6	2.3	2.5
63	20071109	1.1	1.3	0.6		20071107	0.0	0.0	0.5		20071107	2.8	3.0	0.0		20071109	1.1	1.3	0.6
64	20071110	3.1	2.8	2.3		20071108	0.0	0.0	0.0		20071108	1.7	2.6	1.7		20071110	3.1	2.8	2.3
65	20071111	0.0	0.0	0.0		20071109	0.0	0.0	0.0		20071109	1.1	0.6	0.0		20071111	0.0	0.0	0.0
66	20071112	3.7	3.5	0.0		20071110	2.6	2.2	1.8		20071110	3.4	3.3	0.6		20071112	3.7	3.5	0.0
67	20071114	0.0	0.0	0.2		20071111	0.0	0.0	0.0		20071111	0.1	0.6	1.0		20071114	0.0	0.0	0.2
68	20071115	1.3	1.9	0.0		20071112	0.0	0.0	0.0		20071112	0.0	0.0	0.8		20071115	1.3	1.9	0.0
69	20071116	4.4	4.3	2.5		20071114	0.0	0.0	0.0		20071114	3.5	3.6	4.3		20071116	4.4	4.3	2.5
70	20071117	6.1	6.1	5.4		20071115	0.1	0.7	1.7		20071115	3.3	2.8	3.6		20071117	6.1	6.1	5.4
71	20071118	6.6	5.8	5.8		20071116	3.5	3.3	0.9		20071116	4.1	4.1	4.7		20071118	6.6	5.8	5.8
72	20071119	5.0	4.7	3.5		20071117	4.9	5.0	2.6		20071117	5.4	5.6	6.2		20071119	5.0	4.7	3.5
73	20071120	0.0	0.8	0.5		20071118	5.8	5.3	1.7		20071118	5.6	5.8	4.0		20071120	0.0	0.8	0.5
74	20071121	0.7	0.9	0.0		20071119	2.5	1.7	0.0		20071119	4.8	4.8	9.4		20071121	0.7	0.9	0.0
75	20071122	2.7	3.5	2.8		20071120	3.8	3.2	0.9		20071120	0.3	1.7	1.3		20071122	2.7	3.5	2.8
76	20071123	4.2	4.5	4.6		20071121	0.0	0.0	0.0		20071121	0.0	0.0	0.0		20071123	4.2	4.5	4.6
77	20071124	5.7	5.7	5.3		20071122	0.8	0.1	0.4		20071122	0.0	1.3	0.0		20071124	5.7	5.7	5.3
78	20071125	5.9	5.3	3.9		20071123	4.0	3.4	0.9		20071123	3.2	3.4	1.4		20071125	5.9	5.3	3.9
79	20071126	6.8	6.5	5.7		20071124	4.0	3.5	1.5		20071124	3.4	3.5	0.2		20071126	6.8	6.5	5.7
80	20071127	4.9	4.5	5.3		20071125	4.5	4.8	3.6		20071125	4.4	4.1	0.1		20071127	4.9	4.5	5.3
81	20071128	0.9	1.3	0.0		20071126	7.4	8.7	7.9		20071126	5.0	4.9	4.8		20071128	0.9	1.3	0.0
82	20071129	0.5	2.0	1.6		20071127	2.5	2.9	3.1		20071127	4.8	3.9	5.5		20071129	0.5	2.0	1.6
83	20071130	3.7	3.7	2.7		20071128	0.0	0.1	0.0		20071128	4.2	4.2	0.7		20071130	3.7	3.7	2.7
84	20071203	3.8	3.9	2.7		20071129	0.0	0.0	0.3		20071129	1.0	0.7	0.0		20071203	3.8	3.9	2.7
85	20071205	0.0	0.4	0.6		20071130	9.1	9.6	0.5		20071130	4.8	4.7	4.5		20071205	0.0	0.4	0.6
86	20071206	0.0	0.0	1.8		20071201	4.4	4.6	3.7		20071201	4.8	4.9	3.9		20071206	0.0	0.0	1.8
87	20071207	1.1	0.0	1.0		20071203	3.7	2.9	1.9		20071203	2.2	2.1	0.9		20071207	1.1	0.0	1.0
88	20071208	4.9	5.0	3.5		20071204	4.9	4.5	4.0		20071204	2.6	2.8	1.2		20071208	4.9	5.0	3.5
89	20071210	0.4	0.8	1.0		20071205	0.4	0.5	1.5		20071205	0.0	0.0	0.0		20071210	0.4	0.8	1.0
90	20071211	0.6	0.9	1.1		20071206	0.0	0.0	0.0		20071206	1.0	1.1	0.9		20071211	0.6	0.9	1.1
91	20071212	0.6	0.4	0.5		20071207	0.0	0.0	0.0		20071207	0.0	0.0	0.4		20071212	0.6	0.4	0.5
92	20071213	0.0	0.6	0.7		20071208	0.7	0.4	0.0		20071208	0.0	0.0	0.0		20071213	0.0	0.6	0.7
93	20071214	0.0	0.4	0.9		20071210	0.0	0.1	0.0		20071210	2.4	2.1	1.0		20071214	0.0	0.4	0.9
94	20071215	4.1	3.3	2.7		20071211	0.8	0.0	0.0		20071211	0.0	0.0	0.6		20071215	4.1	3.3	2.7
95	20071216	4.0	3.3	2.5		20071212	0.0	0.0	0.0		20071212	0.0	0.0	0.4		20071216	4.0	3.3	2.5
96	20071217	5.6	5.3	3.7		20071213	0.0	0.0	0.2		20071213	0.5	0.4	1.1		20071217	5.6	5.3	3.7
97	20071218	5.2	4.3	2.2		20071214	0.0	0.0	0.0		20071214	0.0	0.0	0.0		20071218	5.2	4.3	2.2
98	20071219	1.1	0.5	0.3		20071215	0.0	0.0	0.0		20071215	0.8	1.7	0.4		20071219	1.1	0.5	0.3
99	20071220	4.2	4.2	2.0		20071216	4.3	4.2	0.0		20071216	2.8	3.8	4.2		20071220	4.2	4.2	2.0
100	20071222	6.1	5.3	2.5		20071217	2.6	3.1	0.6		20071217	1.3	1.4	0.3		20071222	6.1	5.3	2.5
101	20071223	6.9	5.9	4.0		20071218	0.0	0.0	0.0		20071218	3.9	3.8	3.1		20071223	6.9	5.9	4.0
102	20071224	7.2	7.4	5.4		20071219	0.0	0.4	0.0		20071219	0.2	0.2	0.2		20071224	7.2	7.4	5.4
103	20071225	8.9	8.6	5.0		20071220	1.9	1.5	2.8		20071220	0.7	1.5	0.0		20071225	8.9	8.6	5.0
104	20071226	8.2	7.7	5.8		20071222	2.2	1.5	0.0		20071222	3.6	3.3	3.5		20071226	8.2	7.7	5.8
105	20071227	7.0	6.3	6.1		20071223	5.2	5.8	8.3		20071223	4.5	4.7	1.9		20071227	7.0	6.3	6.1
106	20071228	7.1	7.4	6.2		20071224	5.6	5.9	1.7		20071224	6.5	5.9	5.7		20071228	7.1	7.4	6.2
107	20071229	3.0	3.4	0.8		20071225	5.7	5.0	2.4		20071225	6.7	6.2	6.4		20071229	3.0	3.4	0.8
108	20071230	3.2	2.9	1.1		20071226	4.8	3.9	1.2		20071226	5.8	5.9	5.5		20071230	3.2	2.9	1.1
109	20071231	6.1	6.3	5.8		20071227	4.2	3.4	7.0		20071227	5.5	5.1	3.0		20071231	6.1	6.3	5.8
110	20080101	4.2	4.1	4.4		20071228	4.2	4.0	3.2		20071228	4.9	4.8	0.9		20080101	4.2	4.1	4.4
111	20080102	3.7	3.9	1.3		20071229	1.6	0.9	1.6		20071229	4.6	4.3	3.7		20080102	3.7	3.9	1.3
112	20080103	6.9	6.3	4.8		20071230	2.2	0.0	0.5		20071230	3.3	3.5	3.0		20080103	6.9	6.3	4.8
113	20080105	1.8	1.9	1.4		20071231	2.9	2.4	2.0		20071231	3.7	3.6	2.5		20080105	1.8	1.9	1.4
114	20080106	4.0	3.6	2.1		20080101	2.2	1.9	0.4		20080101	3.9	3.7	2.9		20080106	4.0	3.6	2.1
115	20080107	5.1	4.7	4.2		20080102	3.9	2.7	0.7		20080102	3.9	3.7	1.2		20080107	5.1	4.7	4.2
116	20080108	5.3	6.8	2.8		20080103	2.1	2.4	2.3		20080103	5.1	5.3	5.8		20080108	5.3	6.8	2.8
117	20080109	3.8	3.7	0.3		20080104	0.7	0.9	0.0		20080104	3.3	3.0	2.6		20080109	3.8	3.7	0.3

118	20080110	2.8	2.2	0.7		20080105	0.0	0.0	0.0		20080105	0.0	0.0	0.0		20080110	2.8	2.2	0.7
119	20080112	4.6	4.5	4.2		20080106	0.8	1.6	0.0		20080106	0.0	0.0	0.2		20080112	4.6	4.5	4.2
120	20080113	4.4	4.3	2.5		20080107	6.0	7.2	4.3		20080107	3.1	3.0	0.0		20080113	4.4	4.3	2.5
121	20080114	7.0	7.2	6.2		20080108	0.9	0.6	1.1		20080108	3.1	3.5	1.4		20080114	7.0	7.2	6.2
122	20080115	7.7	7.8	5.2		20080109	1.7	1.3	3.0		20080109	3.9	3.5	2.6		20080115	7.7	7.8	5.2
123	20080116	6.4	6.2	3.5		20080111	1.6	1.2	1.1		20080110	4.8	4.0	4.3		20080116	6.4	6.2	3.5
124	20080117	5.4	5.0	4.3		20080112	2.6	1.3	3.8		20080111	4.6	4.4	1.1		20080117	5.4	5.0	4.3
125	20080118	6.2	5.8	3.8		20080113	4.6	2.8	0.8		20080112	3.4	2.9	0.4		20080118	6.2	5.8	3.8
126	20080119	7.2	7.2	4.2		20080115	6.0	7.0	9.9		20080113	3.2	2.8	0.5		20080119	7.2	7.2	4.2
127	20080120	7.9	7.5	5.2		20080116	1.3	2.2	0.9		20080114	4.2	4.0	0.0		20080120	7.9	7.5	5.2
128	20080121	8.2	8.3	5.9		20080117	5.2	4.8	3.8		20080115	5.1	4.7	3.0		20080121	8.2	8.3	5.9
129	20080122	8.0	8.0	5.7		20080118	6.3	5.8	1.0		20080116	4.9	4.3	4.6		20080122	8.0	8.0	5.7
130	20080123	6.0	5.8	6.3		20080119	5.9	5.7	1.1		20080117	5.4	4.4	2.8		20080123	6.0	5.8	6.3
131	20080124	7.0	6.8	5.9		20080120	4.7	3.6	4.5		20080118	5.4	4.9	4.5		20080124	7.0	6.8	5.9
132	20080125	6.8	7.5	5.8		20080121	7.5	8.0	8.0		20080119	6.4	6.0	3.9		20080125	6.8	7.5	5.8
133	20080126	1.7	1.3	0.1		20080123	8.9	9.2	7.0		20080120	6.0	5.7	5.0		20080126	1.7	1.3	0.1
134	20080127	1.9	1.9	3.1		20080125	0.0	0.0	0.0		20080121	6.0	5.5	3.5		20080127	1.9	1.9	3.1
135	20080128	2.9	3.0	1.2		20080126	0.6	0.2	1.0		20080122	5.7	5.1	5.4		20080128	2.9	3.0	1.2
136	20080129	0.0	0.4	0.6		20080127	4.5	2.2	0.7		20080123	5.0	5.6	3.9		20080129	0.0	0.4	0.6
137	20080131	0.0	0.0	0.0		20080128	0.0	0.0	0.0		20080124	6.9	6.1	2.8		20080131	0.0	0.0	0.0
138						20080129	0.0	0.0	0.0		20080125	4.6	4.5	5.9					
139						20080130	0.0	0.0	1.5		20080126	3.8	4.2	0.9					
140						20080131	0.0	0.0	0.0		20080127	2.8	2.9	1.2					
141											20080128	0.5	1.4	3.1					
142											20080129	0.0	0.0	0.0					
143											20080130	0.0	0.0	0.0					
144											20080131	0.5	1.4	0.0					

	Isparta				**İstanbul**				**İzmir**				**Samsun**			
		dT	**dT**	**dT**		**dT**	**dT**	**dT**		**dT**	**dT**	**dT**		**dT**	**dT**	**dT**
	Tarih	**Thm**	**Anl**	**Radio**	**Tarih**	**Thm**	**Anl**	**Radio**	**Tarih**	**Thm**	**Anl**	**Radio**	**Tarih**	**Thm**	**Anl**	**Radio**
1	20070901	4.1	3.6	9.0	20070901	3.0	2.2	4.4	20070901	5.5	5.4	4.6	20070901	2.0	2.0	2.1
2	20070902	3.9	3.9	7.6	20070902	1.6	0.2	0.0	20070902	3.1	3.0	2.0	20070902	1.4	0.6	1.3
3	20070903	3.0	3.0	5.9	20070903	0.0	0.0	0.0	20070903	2.6	2.1	0.0	20070903	0.3	0.2	2.4
4	20070904	1.8	1.2	5.9	20070904	0.0	0.0	0.0	20070904	0.0	0.0	0.7	20070904	0.6	1.4	0.0
5	20070906	1.2	1.3	4.4	20070906	0.0	0.4	0.0	20070906	0.0	0.0	0.0	20070906	1.5	2.3	0.8
6	20070907	1.3	1.7	0.0	20070907	0.0	0.0	0.0	20070907	0.0	0.0	0.9	20070907	0.0	0.0	0.0
7	20070908	0.0	0.0	0.0	20070908	0.0	0.0	1.1	20070908	0.0	0.0	0.0	20070908	0.0	0.0	0.0
8	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0
9	20070910	1.5	2.0	4.1	20070910	0.0	0.0	0.0	20070910	1.7	1.7	0.0	20070910	0.0	0.0	0.0
10	20070911	3.0	2.6	6.9	20070911	0.0	0.0	1.6	20070911	2.1	1.6	2.2	20070911	0.0	0.0	1.6
11	20070912	3.2	2.8	6.6	20070912	0.4	0.4	4.0	20070912	1.8	1.6	3.4	20070912	2.1	2.0	2.8
12	20070913	3.1	3.0	0.0	20070913	0.0	0.0	0.6	20070913	0.2	0.0	0.6	20070913	0.0	0.0	1.6
13	20070914	0.9	0.0	1.5	20070914	0.0	0.0	0.0	20070914	0.0	0.0	0.0	20070914	0.0	0.0	2.0
14	20070915	2.7	2.4	2.8	20070915	0.0	0.0	0.4	20070915	3.3	3.0	0.5	20070915	0.0	0.0	1.0
15	20070916	3.8	3.5	0.9	20070916	0.0	0.0	0.4	20070916	0.0	0.0	0.0	20070916	0.0	0.0	0.0
16	20070917	1.0	0.2	0.0	20070917	0.0	0.0	0.0	20070917	0.4	0.0	0.0	20070917	0.0	0.0	0.0
17	20070918	3.2	2.7	3.3	20070918	0.6	0.0	0.5	20070918	5.2	4.7	3.3	20070918	0.0	0.0	2.9
18	20070919	6.0	5.9	9.4	20070919	1.1	1.3	2.9	20070919	4.3	4.4	1.1	20070919	0.2	0.0	3.0
19	20070920	5.8	5.4	8.0	20070920	1.6	0.9	0.3	20070920	5.2	5.2	4.2	20070920	2.3	3.0	2.3
20	20070921	4.4	4.2	7.6	20070921	0.0	0.0	0.2	20070921	2.1	2.1	0.2	20070921	0.6	0.2	0.0
21	20070922	2.0	1.6	0.0	20070922	0.0	0.0	0.0	20070922	1.5	0.8	0.0	20070922	0.6	0.6	2.0
22	20070923	1.5	1.2	4.4	20070923	0.0	0.0	0.0	20070923	1.1	0.9	0.0	20070923	0.0	0.0	0.0
23	20070924	0.0	0.0	1.8	20070924	0.0	0.0	0.0	20070924	0.4	0.0	0.5	20070924	0.0	0.0	0.0
24	20070925	0.6	0.7	0.0	20070925	0.0	0.0	0.0	20070925	0.2	0.3	0.0	20070925	0.0	0.0	0.0
25	20070926	4.5	4.0	7.4	20070926	1.2	1.2	3.1	20070926	5.1	4.9	2.0	20070926	0.0	0.0	2.6
26	20070927	5.5	5.2	8.0	20070927	5.2	4.5	5.0	20070927	2.6	3.0	1.0	20070927	3.5	3.7	3.3
27	20070928	5.9	5.6	10.0	20070928	5.2	4.5	5.6	20070928	3.2	2.8	0.9	20070928	2.3	3.1	1.4
28	20070929	4.5	5.0	8.7	20070929	5.0	5.1	4.5	20070929	3.6	3.4	0.5	20070929	0.0	0.2	1.8
29	20070930	3.4	3.6	9.2	20070930	4.2	3.9	6.3	20070930	2.6	2.4	0.4	20070930	0.0	0.0	1.9

30	20071001	5.0	4.6	7.8	20071001	3.5	3.6	0.0	20071001	4.9	3.9	0.5	20071001	0.0	0.0	1.1
31	20071002	4.6	4.7	0.7	20071002	0.0	0.0	0.0	20071002	3.1	2.5	0.3	20071002	0.0	0.0	2.2
32	20071003	5.2	5.0	6.0	20071003	0.2	0.0	0.0	20071003	4.2	3.2	0.7	20071003	0.0	0.0	2.4
33	20071004	3.2	3.7	0.5	20071004	1.7	0.8	0.0	20071004	4.3	3.1	0.8	20071004	1.0	0.8	0.6
34	20071005	3.3	2.1	1.9	20071005	1.8	0.6	0.6	20071005	2.1	0.9	0.0	20071005	0.1	0.0	0.0
35	20071006	2.6	2.8	3.6	20071006	0.1	0.1	1.1	20071006	1.9	0.6	1.0	20071006	0.0	0.0	0.0
36	20071007	3.9	3.5	6.5	20071007	0.0	0.3	1.2	20071007	4.5	4.1	3.4	20071007	0.6	0.0	0.1
37	20071008	4.2	4.0	6.7	20071008	0.0	0.0	1.3	20071008	3.4	3.4	1.9	20071008	0.0	0.0	2.0
38	20071009	5.7	5.6	8.1	20071009	0.9	0.6	3.2	20071009	3.8	3.7	2.4	20071009	0.0	0.0	1.3
39	20071010	5.4	5.2	7.6	20071010	0.8	1.0	0.0	20071010	3.9	2.9	0.3	20071010	0.0	0.0	0.7
40	20071011	4.2	3.5	4.2	20071011	0.7	1.1	0.0	20071011	3.4	2.8	2.2	20071011	0.0	0.0	0.0
41	20071012	3.2	3.4	5.1	20071012	0.6	0.7	0.0	20071012	0.4	0.6	1.2	20071012	0.0	0.1	1.6
42	20071013	0.0	0.9	0.0	20071013	0.0	0.0	1.4	20071013	0.0	0.0	0.6	20071013	4.6	5.4	1.9
43	20071014	0.0	0.0	1.9	20071014	0.0	0.0	0.0	20071014	0.0	0.0	1.9	20071014	1.2	0.0	1.3
44	20071015	0.0	0.0	1.1	20071015	0.0	0.0	0.1	20071015	0.1	0.0	0.0	20071015	0.0	0.0	0.0
45	20071016	0.8	0.1	0.0	20071016	0.0	0.0	1.4	20071016	0.3	0.5	0.0	20071016	0.0	0.0	0.0
46	20071018	3.5	3.1	2.2	20071018	4.4	4.3	4.6	20071018	6.2	5.6	1.4	20071018	3.9	2.9	1.7
47	20071019	6.1	5.7	8.5	20071019	4.5	4.0	3.6	20071019	4.0	4.9	3.3	20071019	5.0	4.6	3.2
48	20071020	2.9	2.5	4.5	20071020	0.0	0.0	0.0	20071020	2.2	1.4	0.2	20071020	7.3	7.0	1.6
49	20071021	0.9	0.0	0.0	20071021	0.0	0.0	0.0	20071021	0.5	0.0	0.0	20071021	2.9	2.8	1.9
50	20071023	0.0	0.0	0.0	20071022	1.3	0.4	0.8	20071022	0.9	0.2	0.0	20071022	1.5	2.2	0.7
51	20071024	0.7	1.0	0.1	20071023	0.0	0.0	1.0	20071023	0.0	0.0	0.0	20071023	2.4	2.1	0.6
52	20071025	0.0	0.0	0.7	20071024	0.0	0.0	0.0	20071024	0.0	0.0	0.2	20071024	5.4	5.5	3.4
53	20071026	2.9	2.4	4.5	20071025	0.0	0.0	0.0	20071025	0.0	1.1	0.0	20071025	0.1	1.6	1.6
54	20071027	1.6	1.6	2.8	20071026	0.0	0.0	1.3	20071026	3.1	3.4	2.7	20071026	0.0	0.0	0.0
55	20071028	3.1	2.9	4.9	20071027	0.0	0.0	0.6	20071027	3.6	3.4	0.0	20071027	0.0	0.0	1.2
56	20071101	4.1	4.2	3.9	20071028	0.0	0.0	0.0	20071028	4.5	3.9	2.2	20071028	0.0	0.0	3.4
57	20071102	1.9	2.3	5.0	20071101	2.0	3.5	2.7	20071101	2.2	3.2	0.6	20071101	2.8	3.1	2.2
58	20071103	1.7	2.3	4.1	20071102	0.0	0.0	1.2	20071102	1.1	1.9	0.0	20071102	4.0	4.3	4.8
59	20071104	4.6	4.2	5.6	20071103	0.0	0.0	0.9	20071103	2.3	2.7	1.0	20071103	0.0	0.0	1.2
60	20071105	0.0	0.0	2.7	20071104	0.0	0.0	2.3	20071104	3.7	2.9	0.6	20071104	0.0	0.0	0.0
61	20071106	0.0	0.0	0.0	20071105	0.0	0.0	0.0	20071105	0.0	0.0	0.0	20071105	1.4	1.6	0.5
62	20071109	0.0	0.0	0.0	20071106	0.0	0.0	0.0	20071106	0.2	1.1	0.9	20071106	0.0	0.0	0.0
63	20071110	4.5	4.4	5.3	20071107	0.0	0.0	0.0	20071107	0.1	0.1	0.0	20071107	0.0	0.0	0.0
64	20071111	0.0	0.0	0.0	20071108	0.0	0.0	0.0	20071108	0.0	1.8	0.0	20071108	0.0	0.0	0.0
65	20071112	2.1	2.1	3.4	20071109	0.0	0.0	0.0	20071109	0.0	0.0	1.6	20071109	0.0	0.0	0.8
66	20071114	0.0	0.0	0.7	20071110	0.0	0.4	0.0	20071110	1.1	1.4	0.5	20071110	3.2	2.9	2.2
67	20071115	0.0	0.0	0.0	20071111	0.0	0.0	0.0	20071111	0.0	0.0	0.0	20071111	0.0	0.0	0.2
68	20071116	0.0	0.0	2.1	20071112	0.0	0.0	0.0	20071112	2.4	2.1	0.0	20071112	0.0	0.0	0.7
69	20071117	5.0	4.7	5.8	20071114	0.0	0.0	0.5	20071114	3.2	3.2	0.7	20071114	0.0	0.0	0.2
70	20071118	3.6	3.9	5.5	20071115	2.3	1.7	0.9	20071115	0.0	0.7	0.9	20071115	3.5	3.3	1.5
71	20071119	0.3	0.0	0.0	20071116	0.5	0.5	0.7	20071116	0.1	0.4	0.0	20071116	4.8	4.1	0.0
72	20071120	0.0	0.0	0.0	20071117	3.2	3.3	1.1	20071117	2.5	3.2	0.3	20071117	0.0	0.0	1.7
73	20071121	0.3	0.0	0.0	20071118	3.6	4.2	5.1	20071118	1.3	1.9	0.4	20071118	5.6	4.5	4.7
74	20071122	0.0	0.0	0.0	20071123	0.4	0.0	1.2	20071119	0.0	0.0	0.0	20071119	2.0	2.7	0.3
75	20071123	5.6	4.4	3.1	20071124	3.5	1.9	0.9	20071120	1.7	1.6	0.0	20071120	2.7	2.3	0.0
76	20071124	7.0	6.0	5.4	20071125	0.2	0.1	4.2	20071121	0.0	0.0	0.0	20071121	0.0	0.0	1.4
77	20071125	5.8	5.2	6.8	20071126	1.9	1.7	0.2	20071122	3.3	3.1	0.9	20071122	0.0	0.0	0.0
78	20071126	8.2	8.4	6.9	20071127	0.0	0.0	0.0	20071123	6.9	5.9	3.7	20071123	0.0	0.0	1.6
79	20071127	2.6	2.6	2.0	20071128	0.0	0.0	0.0	20071124	7.4	7.4	4.1	20071124	3.9	3.5	3.9
80	20071128	1.4	0.6	0.0	20071129	0.0	0.0	3.2	20071125	6.0	5.9	2.8	20071125	4.5	4.1	2.6
81	20071129	2.6	1.6	0.4	20071130	1.8	1.9	0.8	20071126	4.7	4.1	1.6	20071126	6.1	6.8	2.3
82	20071130	2.3	2.3	4.4	20071201	0.0	0.1	0.0	20071127	0.4	0.3	0.9	20071127	2.9	3.0	0.4
83	20071201	0.0	0.0	0.0	20071203	0.9	0.2	0.4	20071128	1.4	0.9	0.0	20071128	0.0	0.0	0.0
84	20071203	7.4	7.4	4.4	20071204	1.4	1.1	1.2	20071129	2.1	1.3	0.8	20071129	0.0	0.0	0.0
85	20071204	0.7	0.4	3.9	20071205	0.0	0.0	0.0	20071130	6.9	5.9	1.8	20071130	3.7	4.0	3.3
86	20071205	0.0	0.0	0.0	20071206	0.0	0.0	0.3	20071201	0.2	0.8	1.5	20071201	7.0	8.2	0.2
87	20071206	0.0	0.0	0.0	20071207	0.0	0.0	0.0	20071203	6.2	5.6	1.7	20071203	0.0	2.3	2.8
88	20071207	0.0	0.0	0.0	20071208	0.0	0.0	0.0	20071204	2.3	2.0	0.1	20071204	5.1	4.6	0.8
89	20071208	2.9	2.4	3.1	20071210	2.3	3.2	2.7	20071205	0.0	0.0	0.0	20071205	2.7	2.8	0.0
90	20071210	0.0	0.0	0.0	20071211	0.0	0.0	0.2	20071206	0.0	0.0	0.6	20071206	1.5	1.5	0.7

91	20071211	0.0	0.3	0.0	20071212	0.0	0.0	0.0	20071207	0.0	0.0	0.0	20071207	2.8	0.0	0.4
92	20071212	0.0	0.0	1.5	20071213	0.0	0.1	0.7	20071208	0.0	0.0	1.7	20071208	0.0	0.0	0.0
93	20071213	0.0	0.0	0.7	20071214	0.0	0.0	0.0	20071210	0.4	0.9	0.0	20071210	3.4	2.1	0.0
94	20071214	0.0	0.0	0.0	20071215	0.0	0.0	0.0	20071211	0.9	1.2	0.6	20071211	2.2	1.7	0.0
95	20071215	3.9	3.9	0.4	20071216	0.0	0.0	0.0	20071212	1.7	2.2	1.8	20071212	1.6	1.9	0.1
96	20071216	0.0	0.0	0.0	20071217	0.0	0.0	0.7	20071213	0.0	0.0	0.0	20071213	0.0	0.0	0.0
97	20071217	1.6	2.1	3.6	20071218	0.0	0.0	0.0	20071214	1.1	0.6	0.0	20071214	0.0	0.0	0.0
98	20071218	1.9	1.8	0.0	20071219	0.0	0.0	0.0	20071215	2.5	3.0	0.6	20071215	0.0	0.0	0.6
99	20071219	2.7	1.4	2.3	20071220	2.4	1.6	0.0	20071216	4.5	4.1	1.5	20071216	0.0	4.6	3.7
100	20071220	4.4	4.0	1.2	20071222	2.0	1.2	0.5	20071217	3.7	3.2	0.0	20071217	0.0	0.0	0.0
101	20071222	4.4	4.6	1.1	20071223	0.0	0.0	2.3	20071218	3.0	2.8	0.5	20071218	0.0	0.0	0.0
102	20071223	5.9	5.3	2.0	20071224	0.0	0.1	2.7	20071220	3.5	3.3	0.8	20071219	0.0	0.0	0.0
103	20071224	5.7	5.3	4.9	20071225	1.1	0.2	0.3	20071222	5.5	5.0	3.0	20071220	0.0	0.0	0.5
104	20071225	5.5	5.2	5.1	20071226	0.3	0.2	1.1	20071223	5.9	5.1	2.3	20071222	0.0	0.0	0.0
105	20071226	5.5	5.8	6.2	20071227	0.0	0.0	0.0	20071224	6.4	6.3	4.3	20071223	3.1	2.5	2.1
106	20071227	6.4	5.9	4.9	20071228	0.0	0.0	0.1	20071225	6.1	6.1	3.6	20071224	4.6	3.8	0.2
107	20071228	5.0	4.2	6.7	20071229	0.0	0.0	0.0	20071226	5.9	6.1	3.7	20071225	5.1	5.6	2.6
108	20071229	4.1	1.0	4.4	20071230	1.7	1.8	0.5	20071227	6.5	5.8	3.1	20071226	3.8	4.0	2.3
109	20071230	5.0	3.5	2.6	20071231	0.2	0.2	1.0	20071228	4.8	4.4	0.2	20071227	5.4	4.5	1.2
110	20071231	5.4	4.6	6.6	20080101	0.2	0.0	1.3	20071229	3.2	2.8	0.8	20071228	0.0	0.0	1.2
111	20080101	5.1	4.6	5.1	20080102	1.4	1.0	1.1	20071230	5.6	4.8	4.0	20071229	0.0	0.0	0.0
112	20080102	0.6	0.0	1.6	20080103	0.2	0.0	0.0	20071231	7.3	6.8	3.8	20071230	0.0	0.0	0.0
113	20080103	0.1	0.4	0.7	20080104	0.0	0.0	0.0	20080101	3.9	4.1	2.0	20071231	0.0	0.0	2.3
114	20080104	0.0	1.2	0.0	20080105	0.0	0.0	0.0	20080102	0.8	1.1	0.0	20080101	0.0	4.5	3.0
115	20080105	0.1	0.4	0.6	20080106	4.2	4.8	0.0	20080103	0.0	0.0	0.5	20080102	2.8	3.8	2.2
116	20080106	4.3	4.0	2.1	20080107	0.8	0.6	1.3	20080104	0.0	0.0	0.0	20080103	4.0	3.6	1.1
117	20080107	6.3	6.2	2.4	20080108	0.0	0.1	0.0	20080105	0.9	0.5	0.0	20080104	0.0	0.0	0.0
118	20080108	1.3	1.0	0.0	20080111	0.4	0.0	0.6	20080106	6.1	6.1	6.0	20080105	0.0	0.0	1.4
119	20080109	1.1	1.1	0.1	20080112	0.1	0.1	0.6	20080107	4.0	5.2	3.1	20080106	0.0	0.0	0.0
120	20080110	1.1	0.5	1.3	20080113	3.3	2.5	2.3	20080108	3.6	3.9	2.9	20080107	4.8	5.0	0.3
121	20080111	0.5	0.2	1.3	20080115	6.5	6.4	1.3	20080109	3.5	3.3	2.3	20080108	1.7	1.4	0.0
122	20080112	3.1	2.5	3.9	20080116	0.0	0.0	0.0	20080110	2.6	2.7	1.7	20080109	0.0	0.0	0.0
123	20080113	4.9	4.4	0.2	20080117	3.4	3.0	1.4	20080111	4.4	4.3	1.1	20080111	0.0	0.0	0.0
124	20080114	6.3	5.7	6.1	20080118	5.4	4.9	1.9	20080112	6.1	5.7	0.6	20080112	5.1	4.8	0.5
125	20080115	6.3	6.2	7.7	20080119	4.5	4.3	0.4	20080113	8.4	7.8	4.2	20080113	5.5	5.2	0.7
126	20080116	2.5	0.0	0.9	20080120	0.4	0.3	1.1	20080114	6.0	7.3	4.8	20080115	7.2	8.3	0.7
127	20080117	2.2	2.4	3.3	20080121	1.7	1.6	0.9	20080115	1.2	1.3	4.9	20080116	7.2	7.0	1.3
128	20080118	1.9	2.4	2.1	20080123	4.0	4.1	1.8	20080116	5.7	6.3	2.1	20080117	5.4	4.7	1.5
129	20080119	4.9	4.1	1.1	20080125	0.0	0.0	0.0	20080117	6.0	5.5	0.8	20080118	6.0	5.5	0.5
130	20080120	3.6	3.0	0.8	20080126	1.7	0.4	0.0	20080118	5.6	5.7	2.4	20080119	3.6	4.8	2.8
131	20080121	5.5	5.3	3.8	20080127	0.0	0.0	1.6	20080119	5.9	5.5	0.4	20080120	5.3	5.1	2.9
132	20080122	7.5	6.9	3.7	20080128	0.0	0.0	0.0	20080120	4.2	3.8	1.3	20080121	5.6	5.1	0.9
133	20080123	3.7	4.6	5.9	20080129	0.0	0.0	0.0	20080121	6.0	5.9	1.4	20080123	8.9	9.4	3.1
134	20080124	5.4	5.1	5.2	20080130	0.0	0.0	0.0	20080122	7.5	7.0	5.9	20080125	0.0	0.0	0.0
135	20080125	0.1	0.2	0.0	20080131	0.0	0.1	1.1	20080123	1.1	1.8	0.0	20080126	1.8	0.0	0.0
136	20080126	3.1	2.7	0.2					20080124	1.3	0.5	0.3	20080127	3.8	3.6	0.6
137	20080127	3.1	2.2	2.4					20080125	2.7	1.2	0.0	20080128	0.0	0.0	0.0
138	20080128	1.8	1.7	3.9					20080126	0.7	0.4	0.0	20080129	0.0	0.0	0.0
139	20080129	0.0	0.0	0.0					20080127	4.7	4.4	1.5	20080130	0.0	0.0	0.0
140	20080130	0.0	0.0	0.0					20080128	3.3	3.4	0.4	20080131	0.0	0.0	0.0
141	20080131	0.6	0.9	0.0					20080129	0.0	0.0	0.0				
142									20080130	0.0	0.0	0.0				
143									20080131	3.0	2.8	0.0				

Ek-5 : 12 Z “Tahmin - ECMWF Analiz” ve “Tahmin - Radiosonde Gözlemi” karşılaştırma tabloları

	Adana				Ankara				Diyarbakır				Erzurum			
		dT	dT	dT		dT	dT	dT		dT	dT	dT		dT	dT	dT
	Tarih	Thm	Anl	Radio	Tarih	Thm	Anl	Radio	Tarih	Thm	Anl	Radio	Tarih	Thm	Anl	Radio
1	20070901	0.0	0.0	0.0	20070901	0.0	0.0	0.0	20070901	0.0	0.0	0.0	20070901	0.0	0.0	0.0
2	20070902	0.0	0.0	2.6	20070902	0.0	0.0	0.0	20070902	0.0	0.0	0.0	20070902	0.0	0.0	2.6
3	20070903	0.6	1.1	0.0	20070903	0.0	0.0	0.0	20070903	0.0	0.0	0.0	20070903	0.6	1.1	0.0
4	20070904	0.0	1.3	0.0	20070904	0.0	0.0	0.0	20070904	0.0	0.0	0.0	20070904	0.0	1.3	0.0
5	20070906	0.3	0.7	0.0	20070906	0.0	0.0	0.0	20070906	0.0	0.0	0.0	20070906	0.3	0.7	0.0
6	20070907	0.3	1.0	0.0	20070907	0.0	0.0	0.0	20070907	0.0	0.0	0.0	20070907	0.3	1.0	0.0
7	20070908	0.0	0.0	0.0	20070908	0.0	0.0	0.0	20070908	0.0	0.0	0.0	20070908	0.0	0.0	0.0
8	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0
9	20070910	0.0	0.0	0.0	20070910	0.0	0.0	0.0	20070910	0.0	0.0	0.0	20070910	0.0	0.0	0.0
10	20070911	0.0	0.0	0.0	20070911	0.0	0.0	0.0	20070911	0.0	0.0	0.0	20070911	0.0	0.0	0.0
11	20070912	0.0	0.0	0.0	20070912	0.0	0.0	0.0	20070912	0.0	0.0	0.0	20070912	0.0	0.0	0.0
12	20070913	0.0	0.0	0.0	20070913	0.0	0.0	0.0	20070913	0.0	0.0	0.0	20070913	0.0	0.0	0.0
13	20070914	0.0	0.0	0.0	20070914	0.0	0.0	0.0	20070914	0.0	0.0	0.0	20070914	0.0	0.0	0.0
14	20070915	0.0	0.0	0.0	20070915	0.0	0.2	0.0	20070915	0.0	0.0	0.0	20070915	0.0	0.0	0.0
15	20070916	0.0	0.0	0.0	20070916	0.0	0.0	0.0	20070916	0.0	0.0	0.0	20070916	0.0	0.0	0.0
16	20070917	0.0	0.0	0.0	20070917	0.0	0.0	0.0	20070917	0.0	0.0	0.0	20070917	0.0	0.0	0.0
17	20070918	0.0	0.0	0.0	20070918	0.0	0.0	0.0	20070918	0.0	0.0	0.0	20070918	0.0	0.0	0.0
18	20070919	0.0	0.0	0.0	20070919	0.0	0.0	0.0	20070919	0.0	0.0	0.0	20070919	0.0	0.0	0.0
19	20070920	0.0	0.0	0.0	20070920	0.0	0.0	0.0	20070920	0.0	0.0	0.0	20070920	0.0	0.0	0.0
20	20070921	0.0	0.0	0.0	20070921	0.0	0.0	0.0	20070921	0.0	0.0	0.0	20070921	0.0	0.0	0.0
21	20070922	0.0	0.0	0.0	20070922	0.0	0.0	0.0	20070922	0.0	0.0	0.0	20070922	0.0	0.0	0.0
22	20070923	0.0	0.0	0.0	20070923	0.0	0.0	0.0	20070923	0.0	0.0	0.0	20070923	0.0	0.0	0.0
23	20070924	0.0	0.0	0.0	20070924	0.0	0.0	0.0	20070924	0.0	0.0	0.0	20070924	0.0	0.0	0.0
24	20070925	0.0	0.0	0.0	20070925	0.0	0.0	0.0	20070925	0.0	0.0	0.0	20070925	0.0	0.0	0.0
25	20070926	0.0	0.0	0.0	20070926	0.0	0.0	0.0	20070926	0.0	0.0	0.0	20070926	0.0	0.0	0.0
26	20070927	0.0	0.0	0.0	20070927	0.0	0.0	0.0	20070927	0.0	0.0	0.0	20070927	0.0	0.0	0.0
27	20070928	0.0	0.0	0.0	20070928	0.0	0.0	0.0	20070928	0.0	0.0	0.0	20070928	0.0	0.0	0.0
28	20070929	0.0	0.1	0.0	20070929	0.0	0.0	0.0	20070929	0.0	0.0	0.0	20070929	0.0	0.1	0.0
29	20071001	0.0	0.0	0.0	20070930	0.0	0.0	0.0	20070930	0.0	0.0	0.0	20071001	0.0	0.0	0.0
30	20071002	0.0	0.0	0.0	20071001	0.0	0.0	0.0	20071001	0.0	0.0	0.0	20071002	0.0	0.0	0.0
31	20071003	0.0	0.0	0.0	20071002	0.0	0.0	0.0	20071002	0.0	0.0	0.0	20071003	0.0	0.0	0.0
32	20071004	0.0	0.0	0.0	20071003	0.0	0.0	0.0	20071003	0.0	0.0	0.0	20071004	0.0	0.0	0.0
33	20071005	0.0	0.0	0.0	20071004	0.0	0.0	0.0	20071004	0.0	0.0	0.0	20071005	0.0	0.0	0.0
34	20071006	0.0	0.0	0.0	20071005	0.0	0.0	0.0	20071005	0.0	0.0	0.0	20071006	0.0	0.0	0.0
35	20071007	0.0	0.0	0.0	20071006	0.0	0.0	0.0	20071006	0.0	0.0	0.0	20071007	0.0	0.0	0.0
36	20071008	0.0	0.0	0.0	20071007	0.0	0.0	0.0	20071007	0.0	0.0	0.0	20071008	0.0	0.0	0.0
37	20071009	0.0	0.0	0.0	20071008	0.0	0.0	0.0	20071008	0.0	0.0	0.0	20071009	0.0	0.0	0.0
38	20071010	0.0	0.0	0.0	20071009	0.0	0.0	0.0	20071009	0.0	0.0	0.0	20071010	0.0	0.0	0.0
39	20071011	0.0	0.0	0.0	20071010	0.0	0.0	0.0	20071010	0.0	0.0	0.0	20071011	0.0	0.0	0.0
40	20071012	0.0	0.0	0.0	20071011	0.0	0.0	0.0	20071011	0.0	0.0	0.0	20071012	0.0	0.0	0.0
41	20071013	0.0	0.0	0.0	20071012	0.0	0.0	0.0	20071012	0.0	0.0	0.0	20071013	0.0	0.0	0.0
42	20071014	0.0	0.0	0.0	20071013	0.0	0.0	0.0	20071013	0.0	0.0	0.0	20071014	0.0	0.0	0.0
43	20071015	0.0	0.0	0.0	20071014	0.0	0.0	0.0	20071014	0.0	0.0	0.0	20071015	0.0	0.0	0.0
44	20071016	0.0	0.0	0.0	20071016	0.0	0.0	0.0	20071015	0.0	0.0	0.0	20071016	0.0	0.0	0.0
45	20071018	0.0	0.0	0.0	20071018	0.0	0.0	0.0	20071016	0.0	0.0	0.0	20071018	0.0	0.0	0.0
46	20071019	0.0	0.0	0.0	20071019	0.0	0.1	0.0	20071018	0.0	0.0	0.0	20071019	0.0	0.0	0.0
47	20071020	0.0	0.0	0.0	20071020	0.0	0.0	0.0	20071019	0.0	0.0	0.0	20071020	0.0	0.0	0.0
48	20071021	0.0	0.0	0.0	20071021	0.0	0.0	0.0	20071020	0.0	0.0	0.0	20071021	0.0	0.0	0.0
49	20071022	0.0	0.0	0.0	20071022	0.0	0.0	0.0	20071021	0.0	0.0	0.0	20071022	0.0	0.0	0.0
50	20071023	0.0	0.0	0.0	20071023	0.0	0.0	0.0	20071022	0.0	0.0	0.0	20071023	0.0	0.0	0.0
51	20071024	0.0	0.0	0.0	20071024	0.0	0.0	0.0	20071023	0.0	0.0	0.0	20071024	0.0	0.0	0.0
52	20071025	0.0	0.0	0.0	20071025	0.0	0.0	0.0	20071024	0.0	0.0	0.0	20071025	0.0	0.0	0.0
53	20071026	0.0	0.0	0.0	20071026	0.0	0.0	0.0	20071025	0.0	0.0	0.0	20071026	0.0	0.0	0.0

54	20071027	0.0	0.0	0.0		20071028	0.0	0.0	0.0		20071026	0.0	0.0	0.0		20071027	0.0	0.0	0.0
55	20071028	0.0	0.0	0.0		20071101	0.0	0.0	0.0		20071027	0.0	0.0	0.0		20071028	0.0	0.0	0.0
56	20071101	0.0	0.0	0.1		20071102	0.0	0.0	0.0		20071028	0.0	0.0	0.0		20071101	0.0	0.0	0.1
57	20071102	0.0	0.0	0.0		20071103	0.0	0.0	0.0		20071101	0.0	0.0	0.0		20071102	0.0	0.0	0.0
58	20071103	0.0	0.0	0.0		20071104	0.0	0.0	0.0		20071102	0.0	0.0	0.0		20071103	0.0	0.0	0.0
59	20071105	0.0	0.0	0.0		20071105	0.0	0.0	0.0		20071103	0.0	0.0	0.0		20071105	0.0	0.0	0.0
60	20071106	0.0	0.0	0.0		20071106	0.0	0.0	0.0		20071104	0.0	0.0	0.0		20071106	0.0	0.0	0.0
61	20071107	0.0	0.0	0.0		20071107	0.0	0.0	0.0		20071105	0.0	0.0	0.0		20071107	0.0	0.0	0.0
62	20071108	0.0	0.0	0.0		20071108	0.0	0.0	0.0		20071106	0.0	0.0	0.0		20071108	0.0	0.0	0.0
63	20071109	0.0	0.0	0.0		20071109	0.0	0.0	0.0		20071107	0.0	0.0	0.0		20071109	0.0	0.0	0.0
64	20071110	0.0	0.0	0.0		20071110	0.0	0.0	0.0		20071108	0.0	0.0	0.0		20071110	0.0	0.0	0.0
65	20071111	0.0	0.0	0.0		20071111	0.0	0.0	0.0		20071109	0.0	0.0	0.0		20071111	0.0	0.0	0.0
66	20071112	0.0	0.0	0.0		20071112	0.0	0.0	0.0		20071110	0.0	0.0	0.0		20071112	0.0	0.0	0.0
67	20071114	0.0	0.0	0.0		20071114	0.0	0.0	0.0		20071111	0.0	0.0	0.0		20071114	0.0	0.0	0.0
68	20071115	0.0	0.0	0.0		20071115	0.0	0.0	0.0		20071112	0.0	0.0	0.0		20071115	0.0	0.0	0.0
69	20071116	0.0	0.0	0.0		20071116	0.0	0.0	0.0		20071114	0.0	0.0	0.0		20071116	0.0	0.0	0.0
70	20071117	0.0	0.0	0.0		20071117	0.0	0.0	0.0		20071115	0.0	0.0	0.0		20071117	0.0	0.0	0.0
71	20071118	0.0	0.0	0.0		20071118	0.0	0.0	0.0		20071116	0.0	0.0	0.0		20071118	0.0	0.0	0.0
72	20071119	0.0	0.0	0.2		20071119	0.0	0.0	0.0		20071117	0.0	0.0	0.0		20071119	0.0	0.0	0.2
73	20071120	0.0	0.0	0.0		20071120	0.0	0.0	0.0		20071118	0.0	0.0	0.0		20071120	0.0	0.0	0.0
74	20071121	0.0	0.0	0.0		20071121	0.0	0.0	0.0		20071119	0.0	0.0	0.0		20071121	0.0	0.0	0.0
75	20071122	0.0	0.0	0.0		20071122	0.0	0.4	0.0		20071120	0.0	0.0	0.0		20071122	0.0	0.0	0.0
76	20071123	0.0	0.0	0.0		20071123	0.0	0.0	0.0		20071121	0.0	0.0	0.0		20071123	0.0	0.0	0.0
77	20071124	0.0	0.0	0.0		20071124	0.1	0.5	0.0		20071122	0.0	0.0	0.0		20071124	0.0	0.0	0.0
78	20071125	0.0	0.0	0.0		20071125	0.8	2.6	0.2		20071123	0.0	0.0	0.0		20071125	0.0	0.0	0.0
79	20071126	0.0	0.0	0.0		20071126	0.8	2.0	0.6		20071124	0.0	0.0	0.0		20071126	0.0	0.0	0.0
80	20071127	0.4	0.4	0.2		20071127	0.0	0.0	0.0		20071125	0.0	0.0	0.0		20071127	0.4	0.4	0.2
81	20071128	0.0	0.0	0.0		20071128	0.0	0.0	0.0		20071126	0.0	0.0	0.0		20071128	0.0	0.0	0.0
82	20071129	0.0	0.0	0.0		20071129	4.2	4.3	3.2		20071127	0.4	0.6	0.0		20071129	0.0	0.0	0.0
83	20071201	0.0	0.0	0.0		20071130	0.7	2.0	3.4		20071128	0.0	0.0	0.0		20071201	0.0	0.0	0.0
84	20071204	0.0	0.0	0.4		20071201	0.0	0.0	0.0		20071130	0.2	0.9	1.4		20071204	0.0	0.0	0.4
85	20071205	0.0	0.0	0.0		20071203	1.1	1.6	2.9		20071201	0.0	0.0	0.2		20071205	0.0	0.0	0.0
86	20071206	0.0	0.0	0.9		20071204	0.0	0.0	0.0		20071203	0.0	0.0	0.0		20071206	0.0	0.0	0.9
87	20071207	0.0	0.0	0.0		20071205	0.0	0.0	0.0		20071204	0.0	0.0	0.0		20071207	0.0	0.0	0.0
88	20071208	0.0	0.0	0.0		20071206	0.0	0.0	0.0		20071205	0.0	0.0	0.0		20071208	0.0	0.0	0.0
89	20071210	0.0	0.0	0.6		20071207	0.0	0.0	0.0		20071206	0.0	0.0	1.5		20071210	0.0	0.0	0.6
90	20071211	0.0	0.0	0.0		20071208	0.6	0.0	1.1		20071207	0.0	0.0	0.0		20071211	0.0	0.0	0.0
91	20071212	0.0	0.0	0.0		20071210	0.0	0.0	0.0		20071208	0.0	0.0	0.0		20071212	0.0	0.0	0.0
92	20071213	0.0	0.0	0.1		20071211	0.0	0.0	0.0		20071210	0.0	0.0	0.0		20071213	0.0	0.0	0.1
93	20071214	0.0	0.0	0.0		20071212	0.0	0.0	0.0		20071211	0.0	0.0	0.0		20071214	0.0	0.0	0.0
94	20071215	0.0	0.0	0.0		20071213	0.0	0.0	0.0		20071212	0.0	0.0	0.0		20071215	0.0	0.0	0.0
95	20071216	0.0	0.0	0.0		20071214	0.0	0.0	0.0		20071213	0.0	0.0	0.0		20071216	0.0	0.0	0.0
96	20071217	0.0	0.0	0.0		20071215	0.0	0.2	0.0		20071214	0.0	0.0	0.0		20071217	0.0	0.0	0.0
97	20071218	0.0	0.0	0.0		20071216	0.0	0.0	0.0		20071215	0.0	0.0	0.0		20071218	0.0	0.0	0.0
98	20071219	0.0	0.0	0.0		20071217	0.0	0.2	0.0		20071216	0.0	0.0	0.0		20071219	0.0	0.0	0.0
99	20071220	0.0	0.0	0.0		20071218	0.0	0.0	0.0		20071217	0.0	0.0	0.0		20071220	0.0	0.0	0.0
100	20071222	0.0	0.0	0.0		20071219	1.3	2.8	0.0		20071218	0.0	0.0	0.0		20071222	0.0	0.0	0.0
101	20071223	0.0	0.0	0.0		20071220	0.5	1.4	0.0		20071219	0.0	0.0	0.0		20071223	0.0	0.0	0.0
102	20071224	0.0	0.0	0.0		20071222	0.9	2.6	0.0		20071220	0.0	0.0	0.0		20071224	0.0	0.0	0.0
103	20071225	0.0	0.0	0.0		20071223	1.5	3.1	4.7		20071222	0.0	0.0	0.0		20071225	0.0	0.0	0.0
104	20071226	0.0	0.0	0.0		20071224	0.4	1.0	0.7		20071223	0.0	0.0	1.3		20071226	0.0	0.0	0.0
105	20071227	0.0	0.0	0.0		20071225	0.0	0.6	0.0		20071224	0.6	0.8	0.3		20071227	0.0	0.0	0.0
106	20071228	0.0	0.0	0.0		20071226	0.2	0.5	0.2		20071225	0.2	0.4	0.9		20071228	0.0	0.0	0.0
107	20071229	0.0	0.0	0.0		20071227	0.0	1.1	6.7		20071226	0.0	0.1	0.6		20071229	0.0	0.0	0.0
108	20071230	0.0	0.0	0.0		20071228	0.0	0.5	0.0		20071227	0.0	0.0	0.8		20071230	0.0	0.0	0.0
109	20080101	0.0	0.0	0.0		20071229	0.3	2.1	0.0		20071228	0.0	0.0	0.0		20080101	0.0	0.0	0.0
110	20080102	0.0	0.0	0.0		20071230	0.0	0.3	0.0		20071229	0.0	0.0	0.0		20080102	0.0	0.0	0.0
111	20080104	0.0	0.0	0.0		20071231	0.0	0.3	0.0		20071231	0.0	0.0	0.0		20080104	0.0	0.0	0.0
112	20080105	0.0	0.0	0.0		20080101	0.4	0.8	1.0		20080101	0.0	0.0	0.0		20080105	0.0	0.0	0.0
113	20080106	0.0	0.0	0.0		20080102	0.0	0.4	1.5		20080102	0.0	0.0	0.0		20080106	0.0	0.0	0.0
114	20080107	0.0	0.0	0.0		20080103	0.0	0.0	0.0		20080103	0.0	0.0	0.0		20080107	0.0	0.0	0.0
115	20080108	0.0	0.0	0.0		20080105	0.8	0.4	0.0		20080104	0.0	0.0	0.0		20080108	0.0	0.0	0.0
116	20080109	0.0	0.0	0.0		20080106	1.7	4.5	5.1		20080105	0.0	0.0	0.0		20080109	0.0	0.0	0.0

117	20080110	0.0	0.0	0.0		20080107	0.5	2.3	4.1		20080106	0.0	0.0	0.0		20080110	0.0	0.0	0.0
118	20080111	0.0	0.0	0.0		20080108	0.0	0.0	0.0		20080107	0.0	0.0	0.0		20080111	0.0	0.0	0.0
119	20080112	0.0	0.0	0.0		20080109	0.0	0.0	0.0		20080108	0.0	0.0	0.0		20080112	0.0	0.0	0.0
120	20080113	0.0	0.0	0.0		20080111	0.2	0.5	0.7		20080109	0.0	0.0	0.2		20080113	0.0	0.0	0.0
121	20080114	0.0	0.0	0.0		20080112	0.3	1.9	2.0		20080110	0.0	0.0	0.0		20080114	0.0	0.0	0.0
122	20080115	0.0	0.0	0.0		20080113	0.8	3.1	0.4		20080111	0.0	0.0	0.0		20080115	0.0	0.0	0.0
123	20080116	0.0	0.0	0.4		20080115	0.2	2.1	3.0		20080112	0.0	0.0	0.0		20080116	0.0	0.0	0.4
124	20080117	0.0	0.0	0.0		20080116	0.0	0.2	1.6		20080113	0.0	0.0	0.0		20080117	0.0	0.0	0.0
125	20080118	0.0	0.0	0.0		20080117	0.0	0.1	1.7		20080114	0.0	0.0	0.0		20080118	0.0	0.0	0.0
126	20080120	0.0	0.0	0.0		20080118	0.0	0.5	0.2		20080115	0.0	0.0	0.0		20080120	0.0	0.0	0.0
127	20080121	0.0	0.0	0.0		20080119	0.0	0.2	2.1		20080116	0.0	0.0	0.0		20080121	0.0	0.0	0.0
128	20080122	0.0	0.0	0.0		20080120	0.5	1.9	2.0		20080118	0.0	0.0	0.0		20080122	0.0	0.0	0.0
129	20080123	0.0	0.0	0.0		20080121	1.6	2.2	7.4		20080119	0.0	0.0	0.3		20080123	0.0	0.0	0.0
130	20080124	0.0	0.0	0.0		20080123	0.0	0.2	1.2		20080120	0.0	0.0	0.0		20080124	0.0	0.0	0.0
131	20080125	0.0	0.0	0.0		20080125	0.0	0.0	0.0		20080121	0.0	0.0	0.1		20080125	0.0	0.0	0.0
132	20080126	0.0	0.0	0.0		20080126	0.2	0.0	0.5		20080122	0.2	0.3	0.3		20080126	0.0	0.0	0.0
133	20080127	0.0	0.0	0.0		20080127	0.4	0.6	1.2		20080123	0.0	0.0	0.0		20080127	0.0	0.0	0.0
134	20080128	0.0	0.0	0.2		20080128	0.0	0.0	0.0		20080124	0.0	0.0	0.0		20080128	0.0	0.0	0.2
135	20080129	0.0	0.0	0.0		20080129	0.0	0.0	0.0		20080125	0.0	0.0	0.0		20080129	0.0	0.0	0.0
136	20080130	0.0	0.0	0.0		20080130	0.0	0.0	0.0		20080126	0.0	0.0	0.0		20080130	0.0	0.0	0.0
137						20080131	0.3	0.6	1.9		20080127	0.0	0.0	0.0					
138											20080128	0.0	0.0	0.0					
139											20080129	0.0	0.0	0.0					
140											20080130	0.0	0.0	0.0					

	Isparta				**İstanbul**				**İzmir**				**Samsun**			
		dT	**dT**	**dT**		**dT**	**dT**	**dT**		**dT**	**dT**	**dT**		**dT**	**dT**	**dT**
	Tarih	**Thm**	**Anl**	**Radio**	**Tarih**	**Thm**	**Anl**	**Radio**	**Tarih**	**Thm**	**Anl**	**Radio**	**Tarih**	**Thm**	**Anl**	**Radio**
1	20070901	0.0	0.0	0.0	20070901	0.7	0.9	1.7	20070901	0.0	0.0	0.0	20070901	0.0	0.0	0.4
2	20070902	0.0	0.0	0.0	20070902	0.0	0.0	0.4	20070902	0.0	0.0	0.0	20070902	0.8	0.6	0.0
3	20070903	0.0	0.0	0.0	20070903	0.0	0.0	0.0	20070903	0.0	0.0	0.0	20070903	1.3	1.9	0.4
4	20070904	0.0	0.0	0.0	20070904	0.0	0.0	0.0	20070904	0.0	0.0	0.0	20070904	0.5	2.0	0.0
5	20070906	0.0	0.0	0.0	20070906	0.0	0.0	0.6	20070906	0.0	0.0	0.0	20070906	1.1	2.2	0.0
6	20070907	0.0	0.0	0.0	20070907	0.0	0.0	0.0	20070907	0.0	0.0	0.0	20070907	0.6	0.5	0.0
7	20070908	0.0	0.0	0.0	20070908	0.0	0.0	0.0	20070908	0.0	0.0	0.0	20070908	0.0	0.0	0.0
8	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0	20070909	0.0	0.0	0.0
9	20070910	0.0	0.0	0.0	20070910	0.0	0.0	0.0	20070910	0.0	0.0	0.0	20070910	0.0	0.0	0.0
10	20070911	0.0	0.0	0.0	20070911	0.0	0.0	0.0	20070911	0.0	0.0	0.0	20070911	0.0	0.0	0.0
11	20070912	0.0	0.0	0.0	20070912	0.0	0.0	0.0	20070912	0.0	0.0	0.0	20070912	0.0	0.0	0.0
12	20070913	0.0	0.0	0.0	20070913	0.0	0.0	0.0	20070913	0.0	0.0	0.0	20070913	0.0	0.0	0.0
13	20070914	0.0	0.6	0.0	20070914	0.0	0.0	0.0	20070914	0.0	0.0	0.0	20070914	0.0	0.0	0.0
14	20070915	0.0	0.0	0.0	20070915	0.0	0.0	0.0	20070915	0.0	0.0	0.0	20070915	0.1	0.5	0.0
15	20070916	0.0	0.0	0.0	20070916	0.0	0.0	0.0	20070916	0.0	0.0	0.0	20070916	0.0	0.0	0.0
16	20070917	0.0	0.0	0.0	20070917	0.5	0.3	0.0	20070917	0.2	0.0	0.2	20070917	0.0	0.0	0.0
17	20070918	0.0	0.0	0.0	20070918	0.2	0.0	0.3	20070918	0.0	0.0	0.1	20070918	0.0	0.4	0.0
18	20070919	0.0	0.0	0.0	20070919	0.0	0.0	2.5	20070919	0.0	0.0	0.0	20070919	0.0	0.0	0.8
19	20070920	0.0	0.0	0.0	20070920	0.6	0.0	0.0	20070920	0.0	0.0	0.0	20070920	0.7	0.8	1.2
20	20070921	0.0	0.0	0.0	20070921	0.0	0.0	0.0	20070921	0.0	0.0	0.0	20070921	0.8	1.5	0.0
21	20070922	0.0	0.0	0.0	20070922	0.0	0.0	0.0	20070922	0.0	0.0	0.0	20070922	0.0	0.0	0.0
22	20070923	0.0	0.0	0.0	20070923	0.0	0.0	0.0	20070923	0.0	0.0	0.0	20070923	0.0	0.0	0.0
23	20070924	0.0	0.0	0.0	20070924	0.0	0.0	0.0	20070925	0.0	0.0	0.0	20070924	0.0	0.0	0.0
24	20070925	0.0	0.0	0.0	20070925	0.0	0.0	0.0	20070926	0.0	0.0	0.1	20070925	0.0	0.0	0.0
25	20070926	0.0	0.0	0.0	20070926	0.0	0.0	0.2	20070927	0.0	0.0	0.0	20070926	0.0	0.0	0.0
26	20070927	0.0	0.0	0.0	20070927	0.0	0.0	0.0	20070928	0.0	0.0	0.0	20070927	1.0	1.1	0.6
27	20070928	0.0	0.0	0.0	20070928	0.1	0.4	2.9	20070929	0.0	0.0	0.0	20070928	0.3	0.5	0.1
28	20070929	0.0	0.0	0.0	20070929	0.8	0.0	0.5	20070930	0.0	0.0	0.4	20070929	0.0	0.0	0.5
29	20070930	0.0	0.0	0.0	20070930	1.7	3.1	0.0	20071001	0.0	0.0	0.0	20070930	0.0	0.0	0.0
30	20071001	0.0	0.0	0.0	20071001	0.0	0.0	0.0	20071002	0.0	0.0	0.0	20071001	0.0	0.0	0.0
31	20071002	0.0	0.0	0.0	20071002	0.0	0.0	0.0	20071003	0.0	0.3	0.5	20071002	0.2	0.0	0.0

32	20071003	0.0	0.0	0.0	20071003	1.1	0.2	0.0	20071004	0.0	0.1	0.8	20071003	0.4	0.0	2.9
33	20071004	0.0	0.0	0.0	20071004	1.8	1.2	0.0	20071005	0.0	1.4	0.0	20071004	0.0	0.5	0.0
34	20071005	0.0	0.0	0.0	20071005	0.4	0.0	0.0	20071006	0.0	0.0	0.0	20071005	0.0	0.0	0.0
35	20071006	0.0	0.0	0.0	20071006	0.3	0.3	2.0	20071007	0.0	0.0	0.0	20071006	0.0	0.4	0.0
36	20071007	0.0	0.0	0.0	20071007	0.0	0.0	1.1	20071008	0.0	0.0	0.2	20071007	0.0	0.0	0.0
37	20071008	0.0	0.0	0.0	20071008	0.0	0.0	0.0	20071009	0.0	0.0	0.9	20071008	0.1	0.0	0.0
38	20071009	0.0	0.0	0.0	20071009	1.2	2.6	4.2	20071010	0.0	0.0	0.6	20071009	0.1	0.3	0.0
39	20071010	0.0	0.0	0.0	20071010	0.0	0.1	0.0	20071011	0.0	0.0	0.0	20071010	0.0	0.0	0.0
40	20071011	0.0	0.0	0.0	20071011	0.4	0.9	0.0	20071012	0.0	0.0	0.0	20071011	0.5	0.7	0.0
41	20071012	0.0	0.0	0.0	20071012	0.0	0.0	0.0	20071013	0.0	0.0	0.0	20071012	0.0	0.2	0.0
42	20071013	0.0	0.0	0.0	20071013	0.0	0.0	0.3	20071014	0.0	0.0	0.3	20071013	0.0	0.0	1.0
43	20071014	0.0	0.0	0.0	20071014	0.0	0.0	0.0	20071016	0.2	0.2	0.1	20071014	0.0	0.0	0.5
44	20071015	0.0	0.0	0.0	20071015	0.0	0.0	0.0	20071018	0.0	0.0	0.0	20071015	0.0	0.0	0.0
45	20071016	1.0	1.2	0.0	20071016	0.9	0.5	0.0	20071019	0.0	0.0	0.0	20071016	0.0	0.0	0.0
46	20071018	0.0	0.0	0.0	20071018	0.1	0.0	0.0	20071020	0.0	0.0	0.0	20071018	0.2	0.0	0.0
47	20071019	0.0	0.0	0.0	20071019	0.0	0.0	0.5	20071021	0.0	0.0	0.0	20071019	0.0	0.0	1.0
48	20071020	0.0	0.0	0.0	20071020	0.0	0.0	0.0	20071022	0.0	0.0	0.0	20071020	0.0	0.0	0.5
49	20071021	0.0	0.0	1.4	20071021	0.0	0.0	0.2	20071023	0.0	0.0	0.0	20071021	0.0	0.0	2.5
50	20071022	0.0	0.0	0.8	20071022	0.4	0.0	0.0	20071024	0.0	0.0	0.0	20071022	0.0	0.0	1.0
51	20071023	0.0	0.0	0.0	20071023	0.0	0.0	0.0	20071025	0.0	0.0	0.0	20071023	0.0	0.0	0.6
52	20071024	0.0	0.0	0.0	20071024	0.0	0.0	0.0	20071026	0.0	0.0	0.0	20071024	0.0	0.0	1.4
53	20071025	0.0	0.0	0.0	20071025	0.0	0.0	0.0	20071027	0.1	0.7	0.7	20071025	0.0	0.0	0.0
54	20071026	0.0	0.0	0.0	20071026	0.0	0.0	0.0	20071028	0.3	0.9	1.2	20071026	0.0	0.0	0.0
55	20071027	0.0	0.0	0.0	20071027	0.7	0.6	0.0	20071101	0.0	0.0	0.0	20071027	0.0	0.0	0.0
56	20071028	0.0	0.0	0.0	20071028	0.0	0.0	0.0	20071102	0.0	0.0	0.0	20071028	0.0	0.0	0.0
57	20071101	0.0	0.0	0.0	20071101	0.0	0.0	0.8	20071103	0.0	0.1	0.3	20071101	0.0	0.0	0.5
58	20071102	0.0	0.0	0.0	20071102	0.0	0.0	1.4	20071104	0.0	0.0	0.0	20071102	0.0	0.0	0.0
59	20071103	0.0	0.0	0.0	20071103	0.0	0.0	0.0	20071105	0.0	0.0	0.0	20071103	0.0	0.0	0.0
60	20071104	0.0	0.0	0.0	20071104	0.0	0.0	0.3	20071106	0.0	0.0	0.0	20071104	0.0	0.0	1.0
61	20071105	0.0	0.0	0.0	20071105	0.0	0.0	0.0	20071107	0.0	0.0	0.0	20071105	0.0	0.0	1.5
62	20071106	0.0	0.0	0.0	20071106	0.0	0.0	0.0	20071108	0.0	0.0	0.0	20071106	0.0	0.0	0.0
63	20071109	0.4	0.6	0.0	20071107	0.0	0.0	0.0	20071109	0.0	0.0	0.0	20071107	0.0	0.0	0.0
64	20071110	0.0	0.0	0.0	20071108	0.0	0.0	0.0	20071110	0.0	0.0	0.0	20071108	0.0	0.0	0.0
65	20071111	0.0	0.0	0.0	20071109	0.0	0.0	0.0	20071111	0.0	0.0	0.0	20071109	0.0	0.0	0.0
66	20071112	0.0	0.0	0.0	20071110	0.0	0.0	1.0	20071112	0.0	0.0	0.0	20071110	0.0	0.0	0.0
67	20071114	0.0	0.0	0.0	20071111	0.0	0.0	0.0	20071114	0.0	0.0	0.0	20071111	0.0	0.0	0.0
68	20071115	0.0	0.0	0.0	20071112	0.0	0.0	0.0	20071115	0.0	0.0	0.0	20071112	0.0	0.0	0.0
69	20071116	0.0	0.0	0.0	20071114	0.0	0.0	1.5	20071116	0.0	0.0	0.0	20071114	0.0	0.0	0.7
70	20071117	0.0	0.0	0.0	20071115	0.0	0.0	1.1	20071117	0.6	0.6	0.0	20071115	0.0	0.0	0.0
71	20071118	0.0	0.0	0.0	20071116	0.0	0.0	0.0	20071118	0.0	0.0	0.0	20071116	0.0	0.0	0.0
72	20071119	0.0	0.0	0.0	20071117	0.0	0.1	1.4	20071119	0.0	0.0	0.0	20071117	0.0	0.1	0.6
73	20071120	0.0	0.0	0.0	20071118	0.0	0.0	0.0	20071120	0.0	0.3	0.6	20071118	0.7	0.9	1.2
74	20071121	0.0	0.0	0.0	20071119	0.0	0.0	0.0	20071121	1.5	2.0	0.0	20071119	0.0	0.0	3.5
75	20071122	0.3	0.1	0.0	20071120	0.0	0.0	2.2	20071122	0.5	0.7	1.1	20071120	0.0	0.0	0.0
76	20071123	0.0	0.1	0.1	20071121	3.4	3.2	0.0	20071123	0.0	0.5	0.1	20071121	0.0	0.0	0.0
77	20071124	0.0	0.0	1.0	20071123	0.0	0.3	0.4	20071124	0.0	0.0	0.0	20071122	0.0	0.0	0.0
78	20071125	0.0	0.3	0.0	20071124	0.5	0.7	2.2	20071125	0.2	0.2	1.1	20071123	0.0	0.0	0.0
79	20071126	0.0	0.0	1.1	20071125	0.0	0.4	0.2	20071126	1.6	1.4	0.0	20071124	0.0	0.0	0.2
80	20071127	0.0	0.0	1.6	20071126	0.2	0.0	0.5	20071127	0.0	0.0	0.0	20071125	0.0	0.3	0.0
81	20071128	0.0	0.0	0.0	20071127	0.0	0.0	0.0	20071128	0.0	0.0	0.0	20071126	1.0	1.3	1.7
82	20071129	0.7	2.3	4.9	20071128	0.0	0.0	0.0	20071129	2.6	2.8	0.6	20071127	0.0	0.0	0.0
83	20071130	0.0	0.0	0.0	20071129	0.4	0.5	0.0	20071130	0.0	0.0	0.0	20071128	0.0	0.0	0.0
84	20071201	0.0	0.0	0.0	20071201	0.4	0.0	0.0	20071201	0.0	0.0	0.0	20071129	0.0	0.0	0.0
85	20071203	0.0	0.0	0.0	20071203	0.0	0.0	0.0	20071203	0.0	0.0	0.3	20071130	0.1	0.9	2.7
86	20071204	0.0	0.0	0.0	20071204	0.0	0.0	0.0	20071204	0.0	0.0	0.0	20071201	0.0	0.0	2.9
87	20071205	0.0	0.0	0.0	20071205	0.4	0.0	0.0	20071205	0.0	0.0	0.0	20071203	0.0	0.1	0.0
88	20071206	0.0	0.0	0.0	20071206	0.2	0.0	0.0	20071206	0.0	0.0	0.0	20071204	0.0	0.0	0.0
89	20071207	0.0	0.8	0.0	20071207	1.2	0.4	0.0	20071207	1.2	0.2	0.2	20071205	0.0	0.0	0.0
90	20071208	0.0	0.0	0.0	20071208	0.0	0.0	0.0	20071208	0.0	0.0	0.2	20071206	0.0	0.2	1.0
91	20071210	0.0	0.0	0.0	20071210	0.0	0.0	0.0	20071210	0.0	0.0	0.0	20071207	0.0	0.0	0.0
92	20071212	0.0	0.0	0.0	20071211	0.0	0.0	0.0	20071212	0.0	0.0	0.0	20071208	0.0	0.0	0.0

93	20071213	0.0	0.0	0.0	20071212	0.0	0.0	0.0	20071213	0.0	0.0	0.0	20071210	0.0	0.0	0.0
94	20071214	0.0	0.0	0.0	20071213	0.2	0.0	0.0	20071214	0.0	0.0	0.0	20071211	0.0	0.0	0.0
95	20071215	0.0	0.0	0.0	20071214	0.0	0.0	0.0	20071215	0.0	0.0	0.1	20071212	0.0	0.0	1.6
96	20071216	0.0	0.0	0.0	20071215	0.0	0.0	0.0	20071216	0.1	0.0	0.0	20071213	0.0	0.0	0.0
97	20071217	0.0	0.0	0.0	20071216	0.0	0.0	0.0	20071217	0.0	0.0	0.0	20071214	0.0	0.0	0.0
98	20071218	0.1	0.2	0.0	20071217	0.0	0.0	0.0	20071218	0.4	0.1	0.0	20071215	0.0	0.0	0.0
99	20071219	1.0	1.2	3.1	20071218	0.0	0.0	0.0	20071219	0.7	0.1	0.5	20071216	0.0	0.0	0.0
100	20071220	0.5	0.8	2.0	20071219	0.0	0.0	0.0	20071220	1.8	1.6	0.7	20071217	0.0	0.0	0.0
101	20071222	0.4	1.1	0.2	20071220	0.0	0.0	0.0	20071222	1.5	1.4	0.6	20071218	0.0	0.0	0.0
102	20071223	0.0	0.0	2.0	20071222	1.8	0.8	0.0	20071223	0.0	0.1	0.7	20071219	0.0	0.0	0.0
103	20071224	0.0	0.1	0.9	20071223	0.9	0.1	0.2	20071224	0.0	0.1	0.1	20071220	0.0	0.0	0.0
104	20071225	0.0	0.0	0.0	20071224	0.8	0.4	0.0	20071225	0.0	0.0	0.5	20071222	0.0	0.0	0.0
105	20071226	0.0	0.0	1.2	20071225	1.7	1.8	0.0	20071226	0.0	0.0	0.2	20071223	0.0	0.0	0.0
106	20071227	0.0	0.0	0.3	20071226	0.0	0.0	0.0	20071227	0.0	0.0	0.4	20071224	0.0	0.0	0.0
107	20071228	0.1	0.1	0.9	20071228	0.0	0.0	0.0	20071228	0.6	0.5	0.2	20071225	0.0	0.0	0.0
108	20071229	0.9	1.6	2.5	20071229	0.8	0.5	0.0	20071229	1.0	1.6	3.9	20071226	0.0	0.0	0.0
109	20071230	0.0	0.4	0.3	20071230	1.1	0.3	0.0	20071230	0.3	1.3	1.7	20071227	0.0	0.0	0.0
110	20071231	0.0	0.0	0.1	20071231	1.1	0.9	0.0	20071231	0.0	0.0	0.2	20071228	0.0	0.0	0.0
111	20080102	0.0	0.0	0.0	20080101	0.0	0.0	0.0	20080101	0.0	0.0	0.3	20071229	0.0	0.0	0.0
112	20080103	0.0	0.0	0.0	20080102	0.0	0.0	0.0	20080102	0.0	0.0	0.0	20071230	0.0	0.0	0.0
113	20080104	0.3	0.0	0.0	20080103	0.5	0.0	0.0	20080103	0.0	0.0	0.0	20071231	0.0	0.0	0.0
114	20080105	2.2	2.5	0.0	20080104	0.0	0.0	0.0	20080104	0.5	0.2	0.0	20080101	0.0	0.0	0.0
115	20080106	0.5	1.1	2.6	20080105	0.0	0.0	0.7	20080105	1.4	1.4	2.2	20080102	0.0	0.0	0.0
116	20080107	0.0	0.0	0.0	20080106	2.5	3.7	5.5	20080106	1.5	1.8	1.5	20080103	0.0	0.0	0.8
117	20080108	0.0	0.0	0.0	20080107	0.0	0.0	0.0	20080107	0.0	0.0	0.0	20080104	0.0	0.0	0.0
118	20080109	0.1	0.0	0.0	20080108	1.1	0.3	0.0	20080108	0.0	0.0	0.0	20080105	0.0	0.0	0.0
119	20080110	0.0	0.0	0.0	20080109	0.0	0.0	0.0	20080109	0.2	0.0	0.0	20080106	0.0	0.0	0.0
120	20080111	0.2	0.2	0.0	20080111	0.8	0.6	0.0	20080110	0.0	0.0	0.0	20080107	0.0	1.4	1.9
121	20080112	0.0	0.2	0.0	20080112	0.0	0.1	1.3	20080111	0.3	0.7	1.2	20080108	0.0	0.0	0.0
122	20080113	0.0	0.0	0.0	20080113	1.2	0.5	0.3	20080112	0.0	0.2	0.8	20080109	0.0	0.0	0.0
123	20080114	0.0	0.0	0.0	20080115	0.4	0.3	0.6	20080113	0.0	0.0	0.7	20080111	0.0	0.0	0.0
124	20080115	0.0	0.0	0.9	20080116	0.6	0.0	0.2	20080114	0.0	0.0	0.0	20080112	0.0	0.1	0.0
125	20080116	0.0	0.0	2.4	20080117	0.0	0.0	0.0	20080115	0.0	0.0	0.0	20080113	0.0	1.3	0.2
126	20080117	0.0	0.0	2.6	20080118	0.0	0.2	0.4	20080116	0.0	0.0	0.0	20080115	0.7	3.0	1.6
127	20080118	0.0	0.1	0.8	20080119	0.0	0.0	0.9	20080117	0.0	0.0	0.0	20080116	0.0	0.1	0.0
128	20080119	0.0	0.0	0.0	20080120	0.9	0.8	2.7	20080118	0.0	0.0	0.9	20080117	0.0	0.0	1.6
129	20080120	0.0	0.0	0.0	20080121	0.9	0.6	0.0	20080119	0.2	0.0	0.0	20080118	0.0	0.0	1.2
130	20080121	0.2	0.2	0.3	20080123	0.0	0.2	0.9	20080120	0.4	0.2	1.1	20080119	0.0	0.0	0.0
131	20080122	0.0	0.0	0.7	20080125	0.5	0.0	0.0	20080121	0.2	0.4	1.1	20080120	0.1	0.1	0.0
132	20080123	0.0	0.0	0.0	20080126	0.0	0.0	0.0	20080122	0.0	0.2	1.1	20080121	0.3	0.9	2.4
133	20080124	0.0	0.0	0.0	20080127	0.0	0.3	0.0	20080123	0.0	0.0	0.0	20080123	0.0	0.4	0.0
134	20080125	2.2	1.8	0.0	20080128	0.0	0.0	0.3	20080124	1.4	0.5	0.4	20080125	0.0	0.0	0.0
135	20080126	1.2	1.3	0.0	20080129	0.0	0.0	0.0	20080125	1.0	1.3	0.0	20080126	0.0	0.0	0.0
136	20080127	0.0	0.0	0.2	20080130	0.0	0.0	0.0	20080126	1.0	0.4	0.0	20080127	0.0	0.6	2.7
137	20080128	0.0	0.0	0.0	20080131	0.0	0.4	2.1	20080127	0.9	0.8	0.0	20080128	0.0	0.0	0.0
138	20080129	0.0	0.0	0.0					20080128	0.0	0.0	0.0	20080129	0.0	0.0	0.0
139	20080130	0.0	0.0	0.0					20080129	0.0	0.0	0.0	20080130	0.0	0.0	0.0
140									20080131	0.3	0.5	0.0				

ENVERZİYON DURUMU

KARARSIZLIK DURUMU (Enverziyon yok)