

KIC 007032429

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007032429-01	OBS	No	0.566727	131.901689	12.5	4.296	9.6	3.1	0.89	5598	0.31	4221.52
007032429-02	OBS	No	5.523228	135.892614	539.0	1.519	19.1	18.7	0.89	5598	2.04	202.79
007032429-03	OBS	No	5.116145	131.827460	891.7	0.776	14.5	24.8	0.89	5598	3.23	224.58
007032429-04	OBS	No	5.975691	136.066239	643.8	0.615	15.2	17.1	0.89	5598	2.29	182.58
007032429-05	OBS	No	9.252601	138.423495	3443.9	1.500	15.5	-1.0	0.89	5598	5.17	101.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007032429-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007032429-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
007032429-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

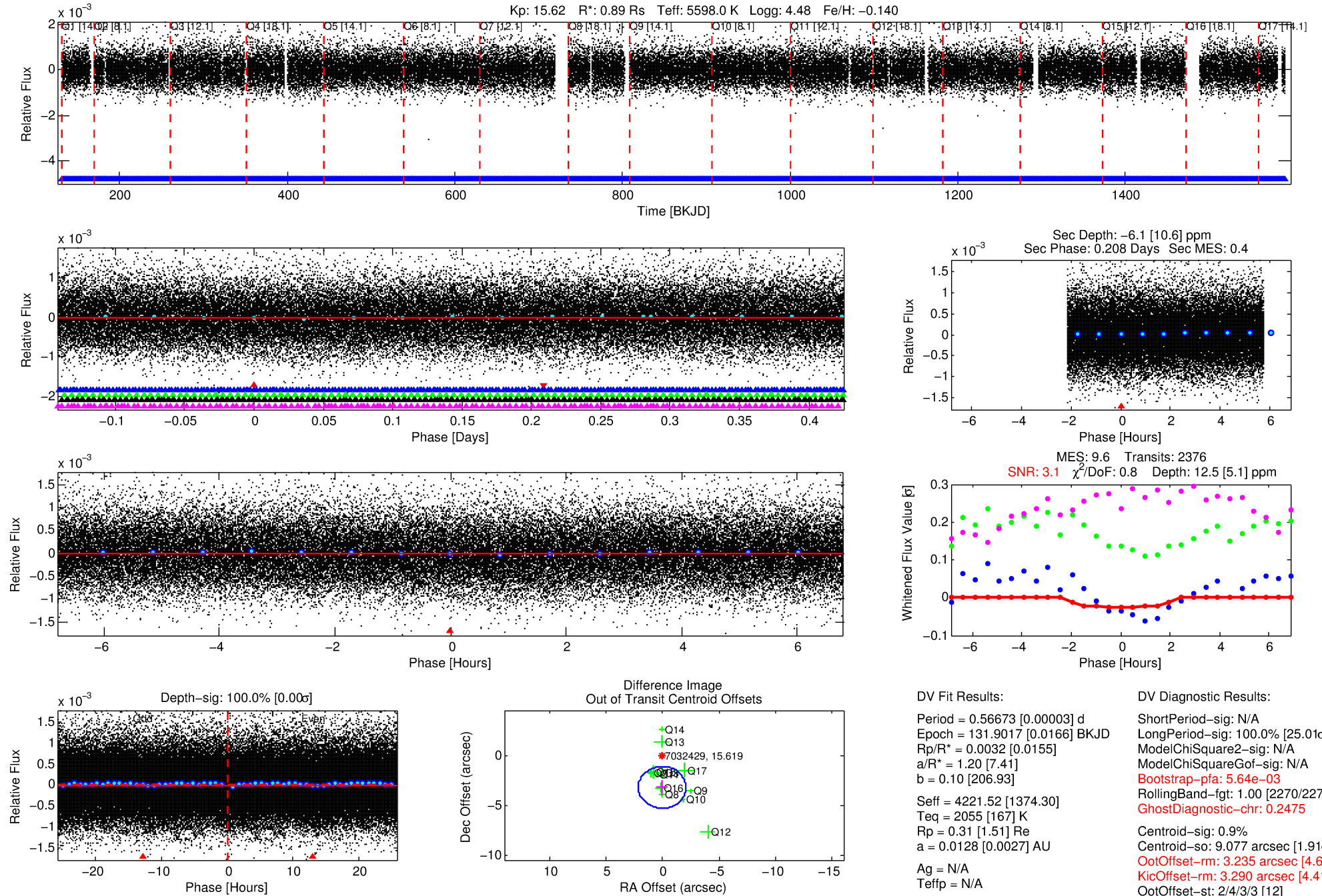
Ephemeris Match Information For 007032429-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007032429-01	7032429	RR-Lyr-pri	7198959	1:1	955.1	219	-98	7.86	15.62	47946.00	Direct-PRF	0	4.12	18.43

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7032429 Candidate: 1 of 5 Period: 0.567 d



DV Fit Results:

Period = 0.56673 [0.00003] d
Epoch = 131.9017 [0.0166] BKJD
Rp/R* = 0.0032 [0.0155]
a/R* = 1.20 [7.41]
b = 0.10 [206.93]
Seff = 4221.52 [1374.30]
Teff = 2055 [167] K
Rp = 0.31 [1.51] Re
a = 0.0128 [0.0027] AU
Ag = N/A
Teffp = N/A

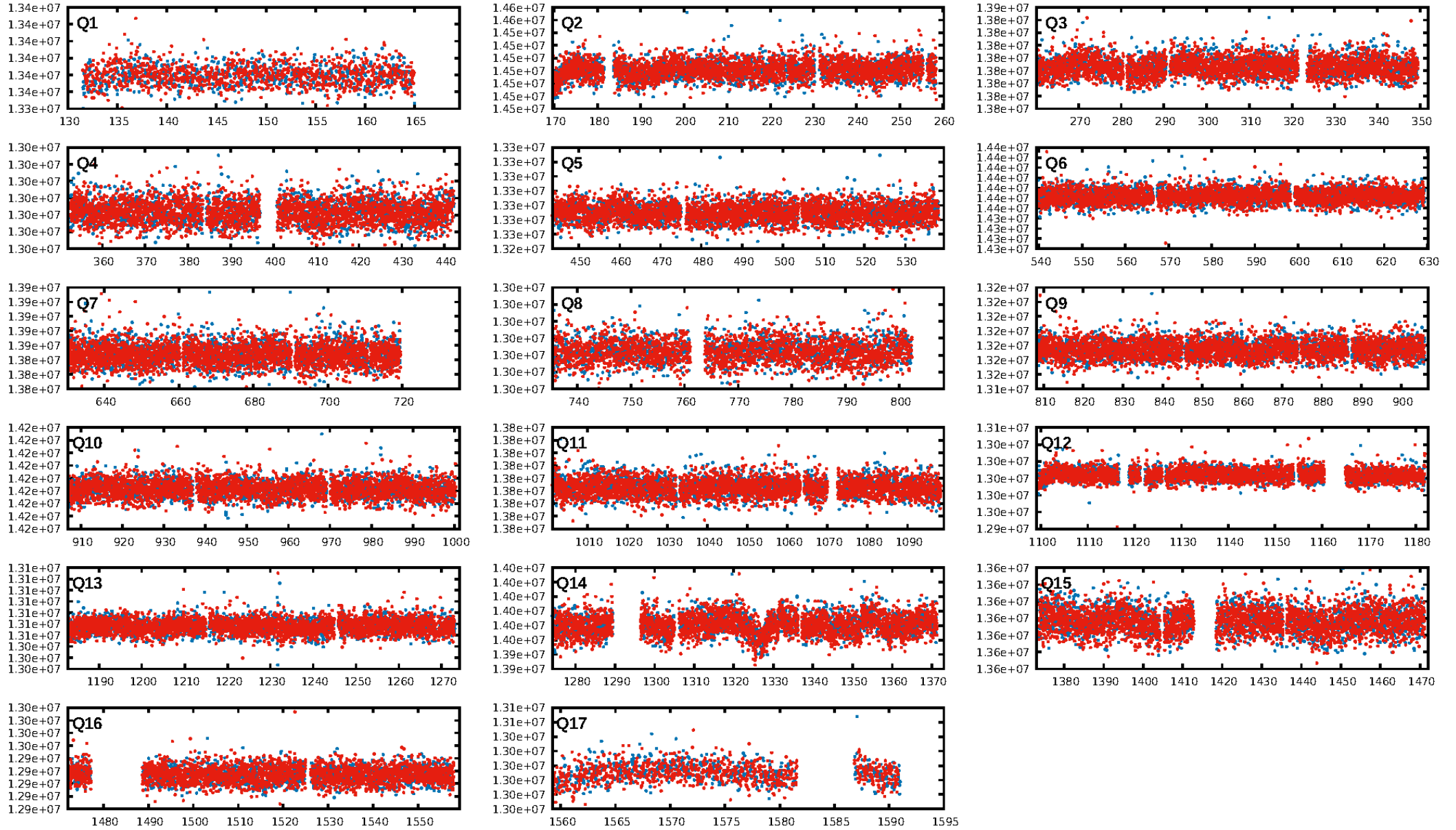
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [25.01 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.64e-03
RollingBand-fgt: 1.00 [2270/2270]
GhostDiagnostic-chr: 0.2475
Centroid-sig: 0.9%
Centroid-so: 9.077 arcsec [1.91 σ]
OotOffset-rm: 3.235 arcsec [4.62 σ]
KicOffset-rm: 3.290 arcsec [4.41 σ]
OotOffset-st: 2/4/3/3 [12]
KicOffset-st: 2/4/3/3 [12]
DiffImageQuality-fgm: 0.58 [7/12]
DiffImageOverlap-fno: 1.00 [17/17]

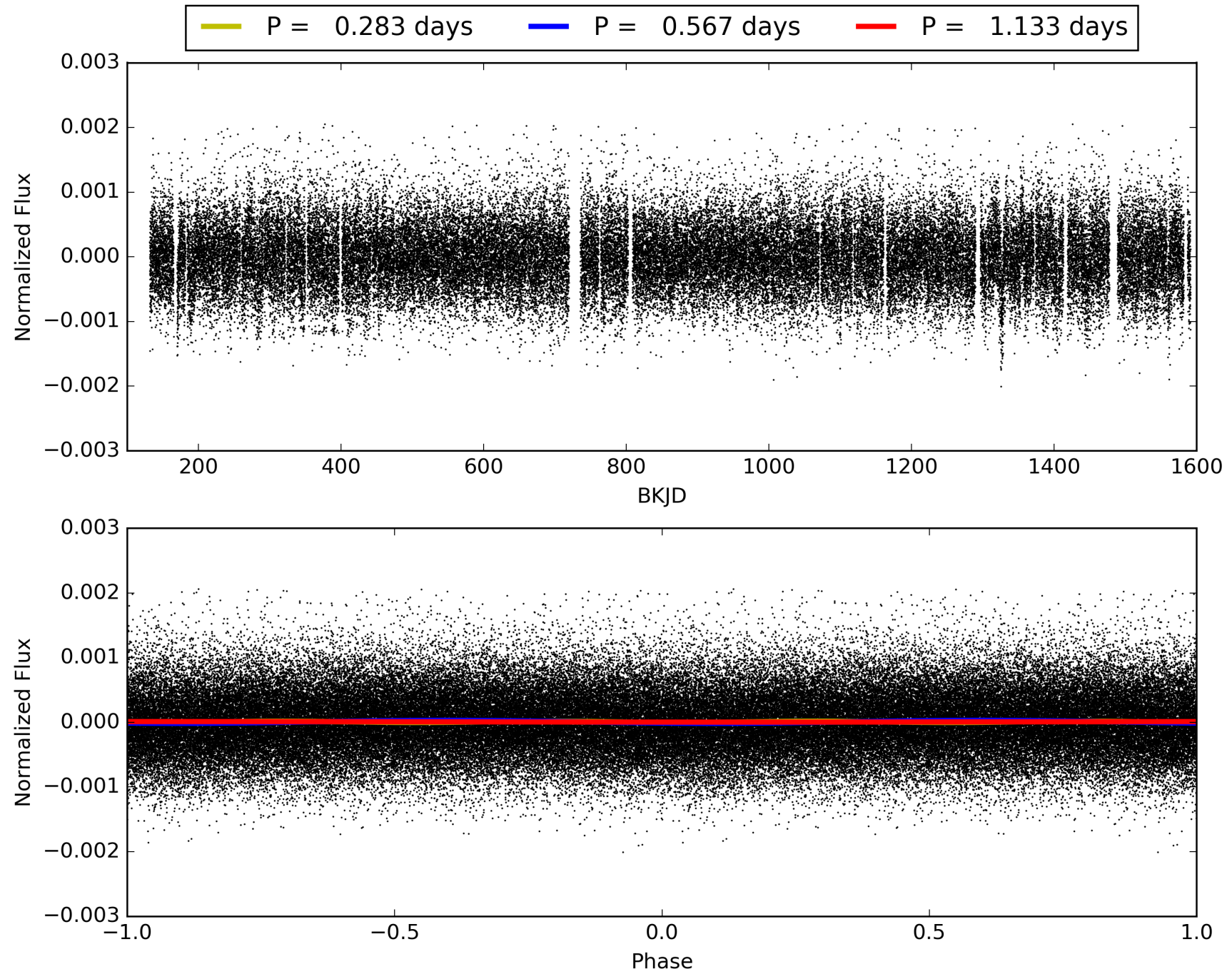
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:10:23 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007032429-01, PDC Light Curves

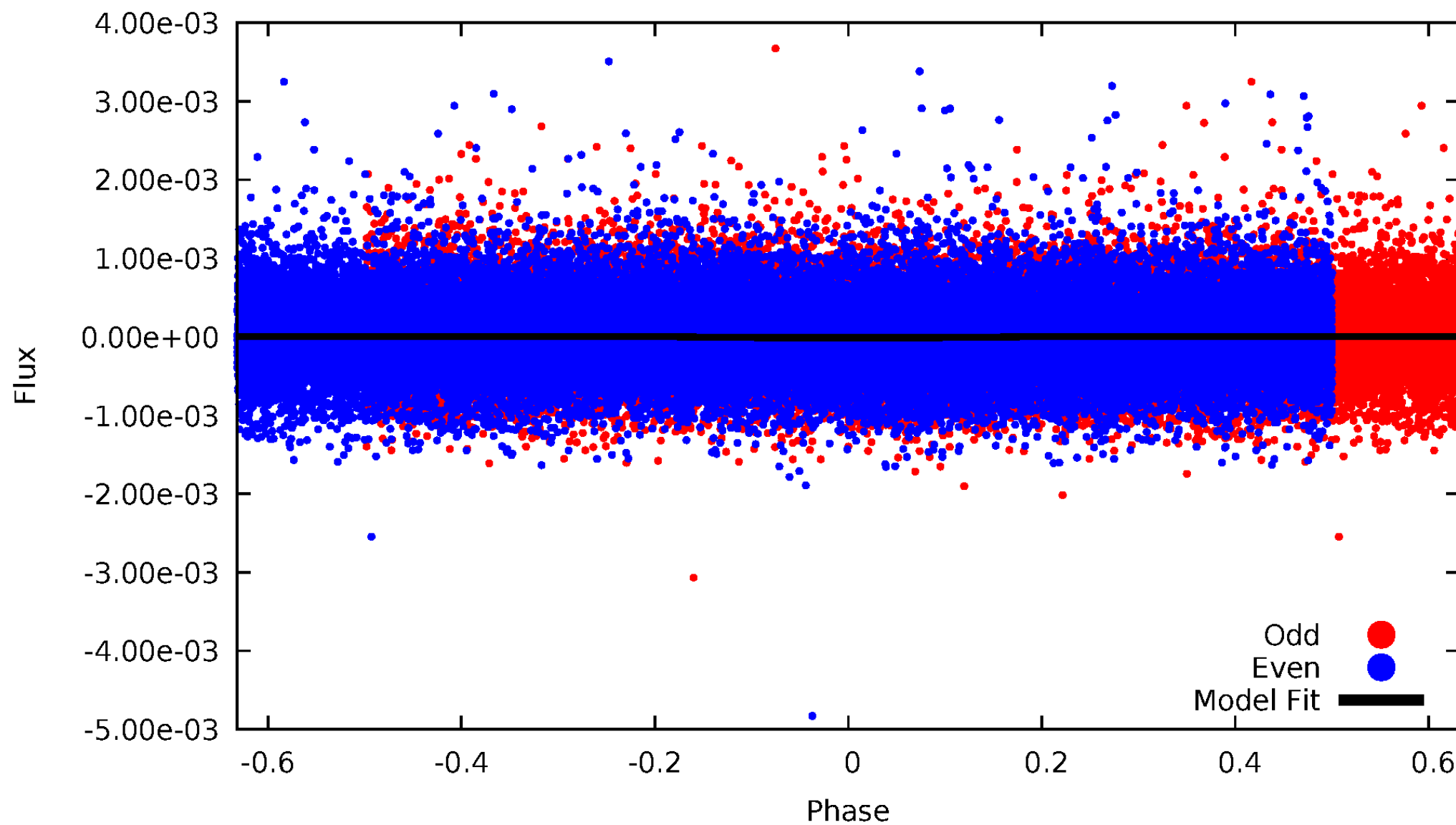


TCE 007032429-01



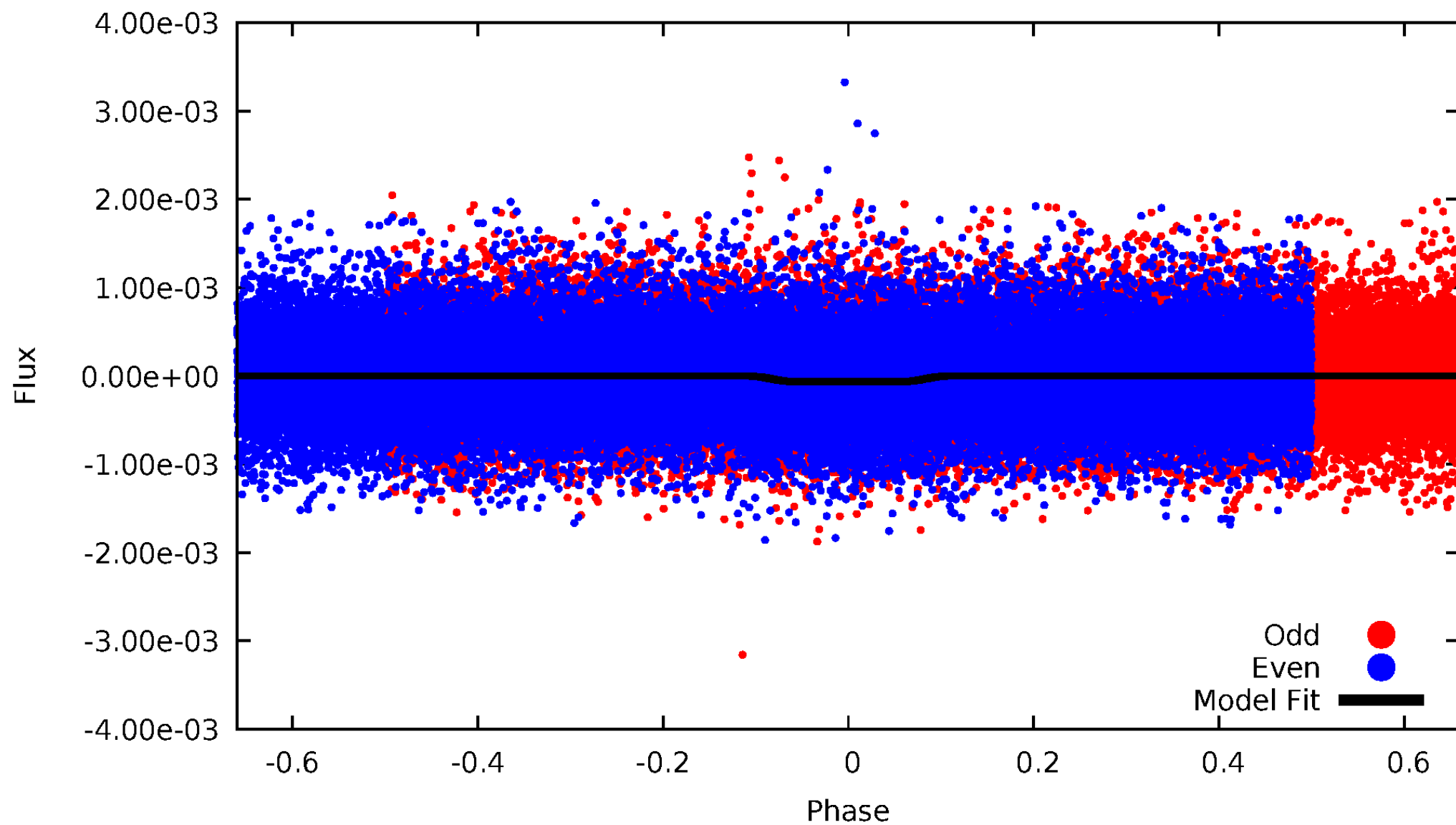
DV Odd/Even

TCE 007032429-01



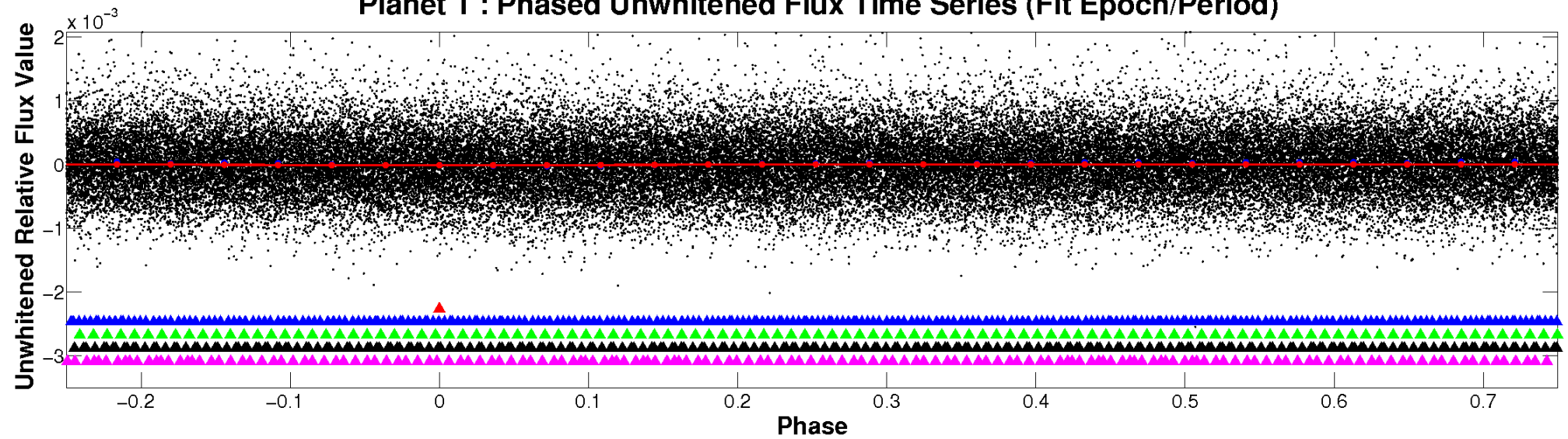
ALT Odd/Even

TCE 007032429-01

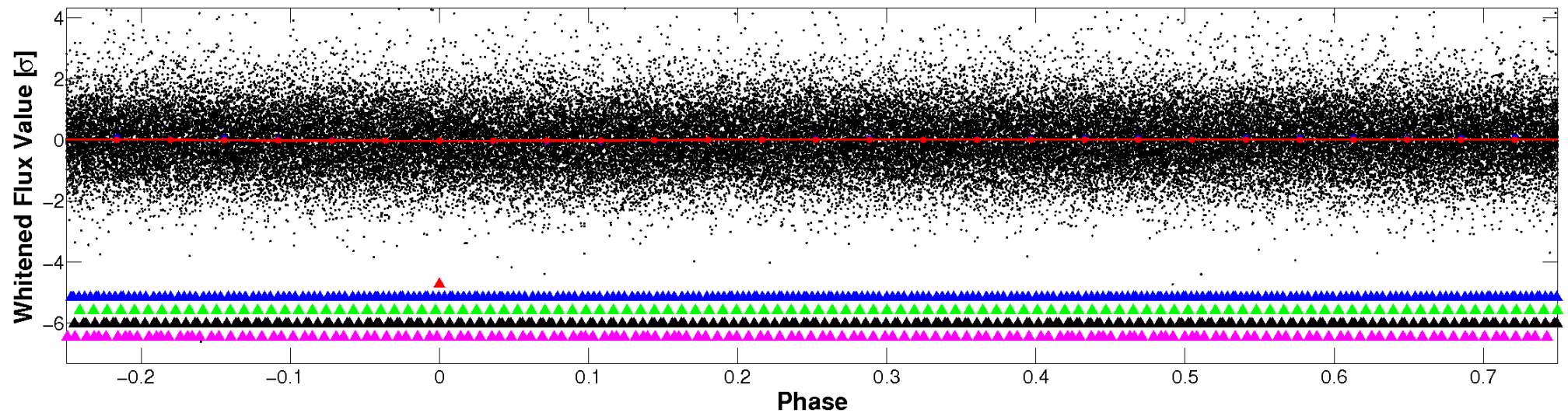


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

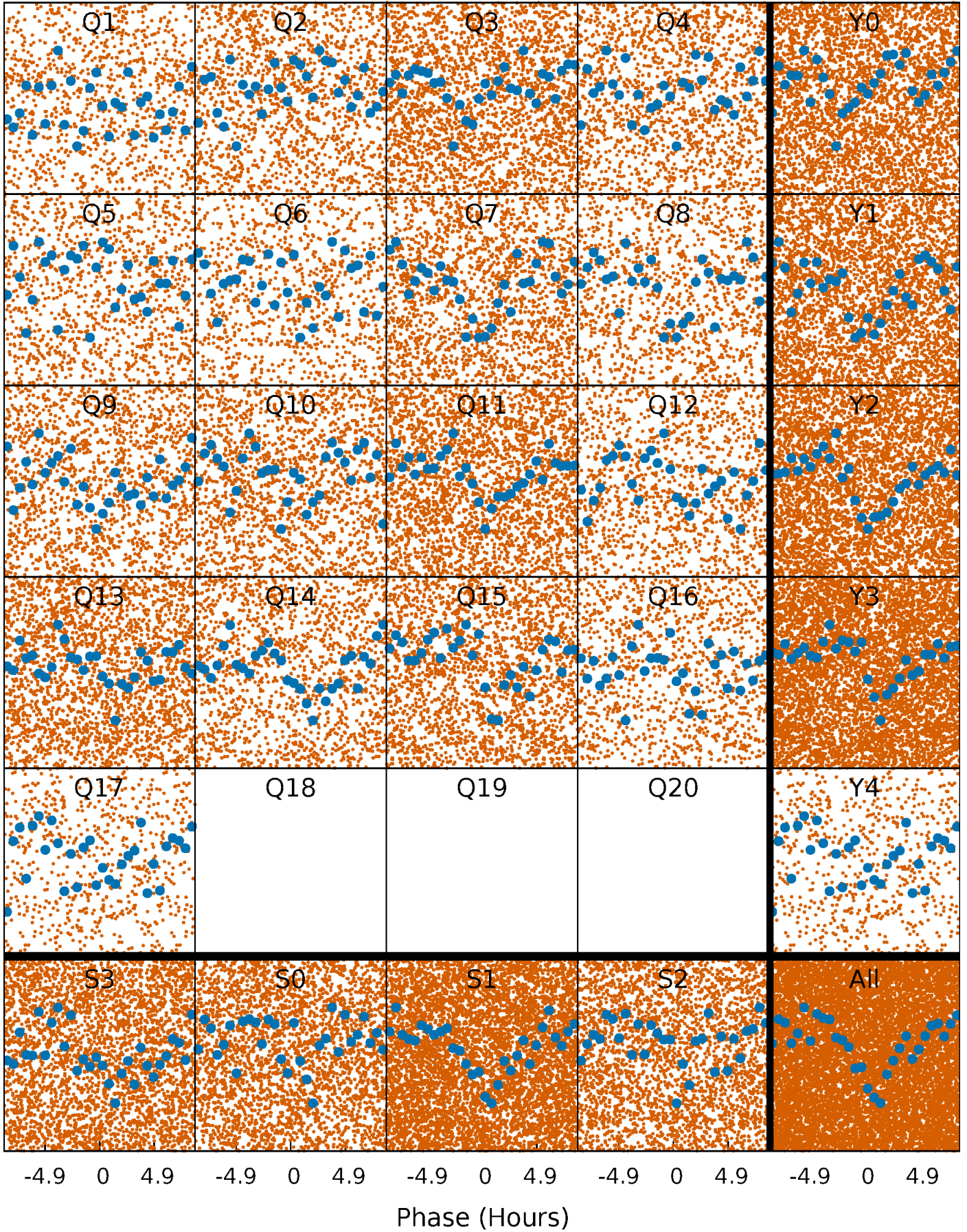


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



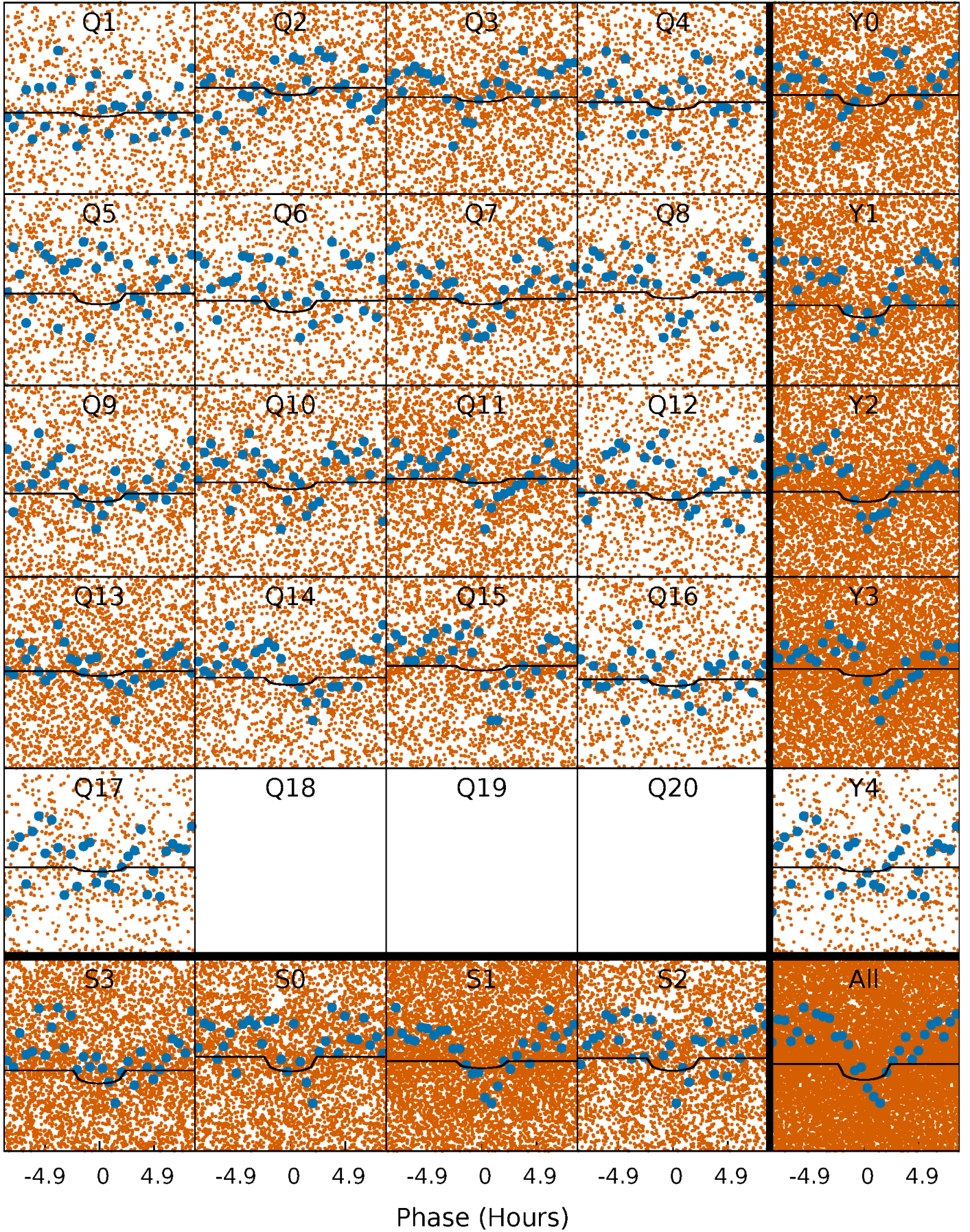
PDC Quarter-Phased Transit Curves

TCE 007032429-01 P= 0.566727 Days $T_0=131.901689$ (BKJD)



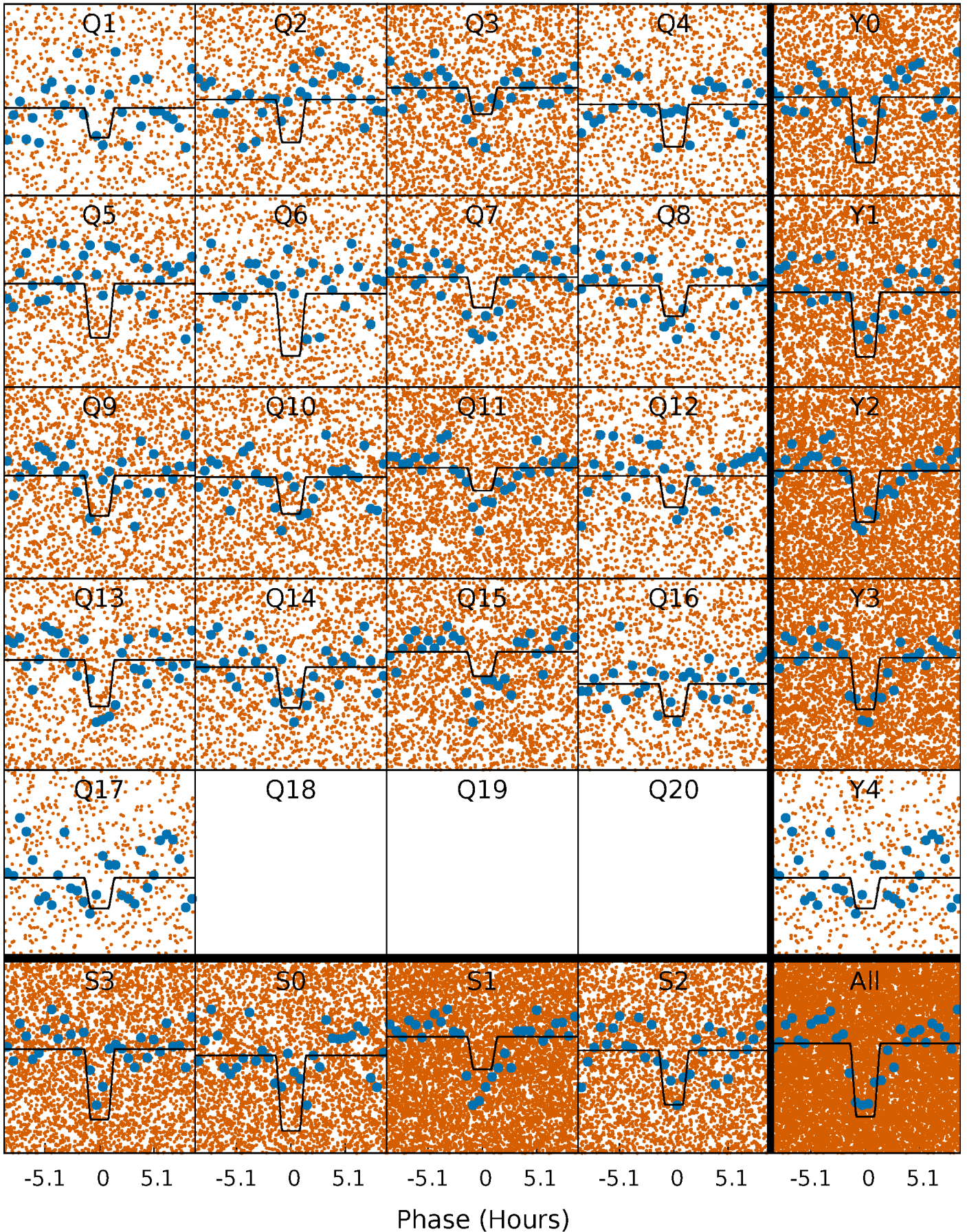
DV Quarter-Phased Transit Curves

TCE 007032429-01 P= 0.566727 Days $T_0=131.901689$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

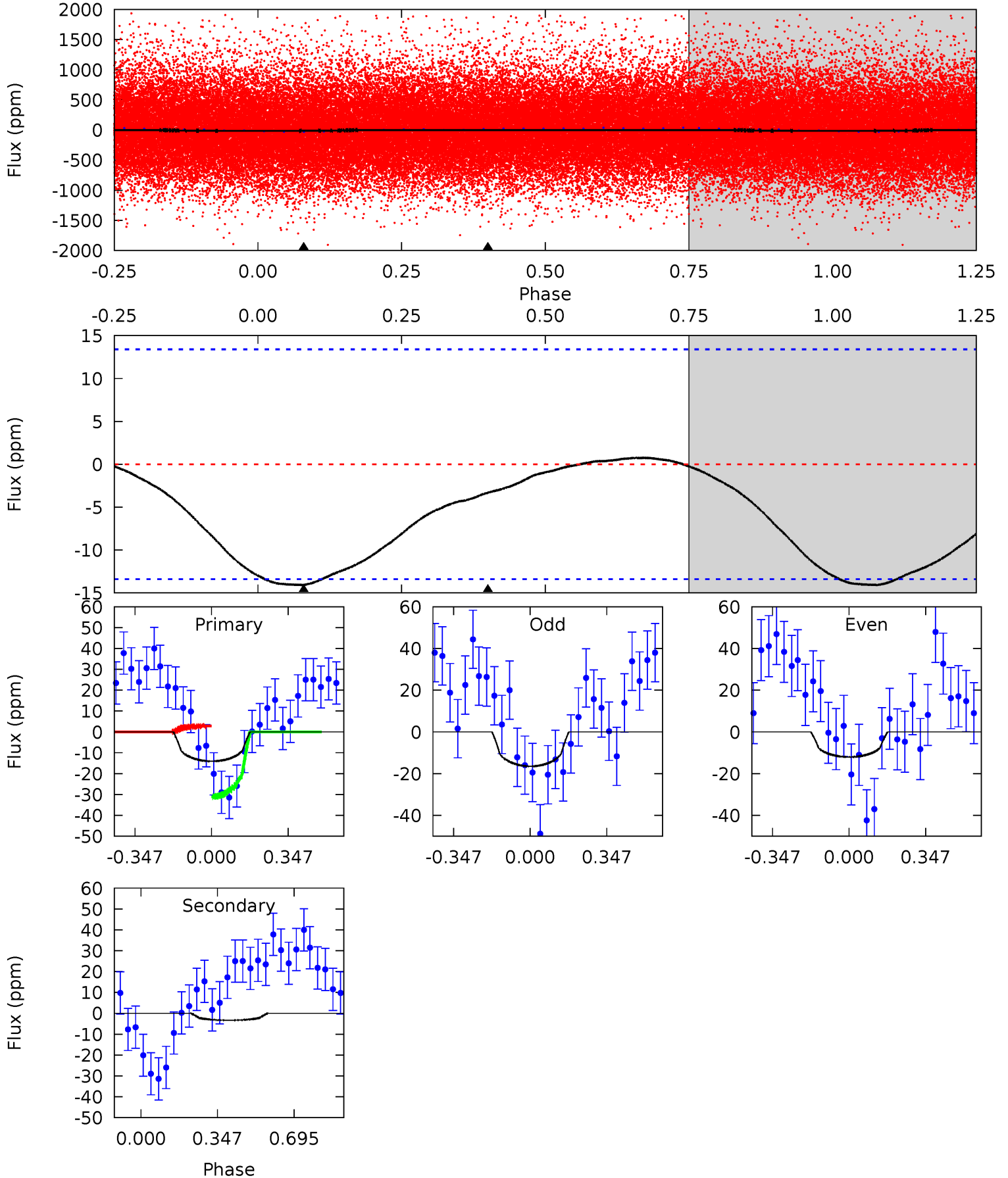
TCE 007032429-01 P= 0.566795 Days $T_0=131.823874$ (BKJD)



DV Model-Shift Uniqueness Test

007032429-01, P = 0.566727 Days, E = 131.334962 Days

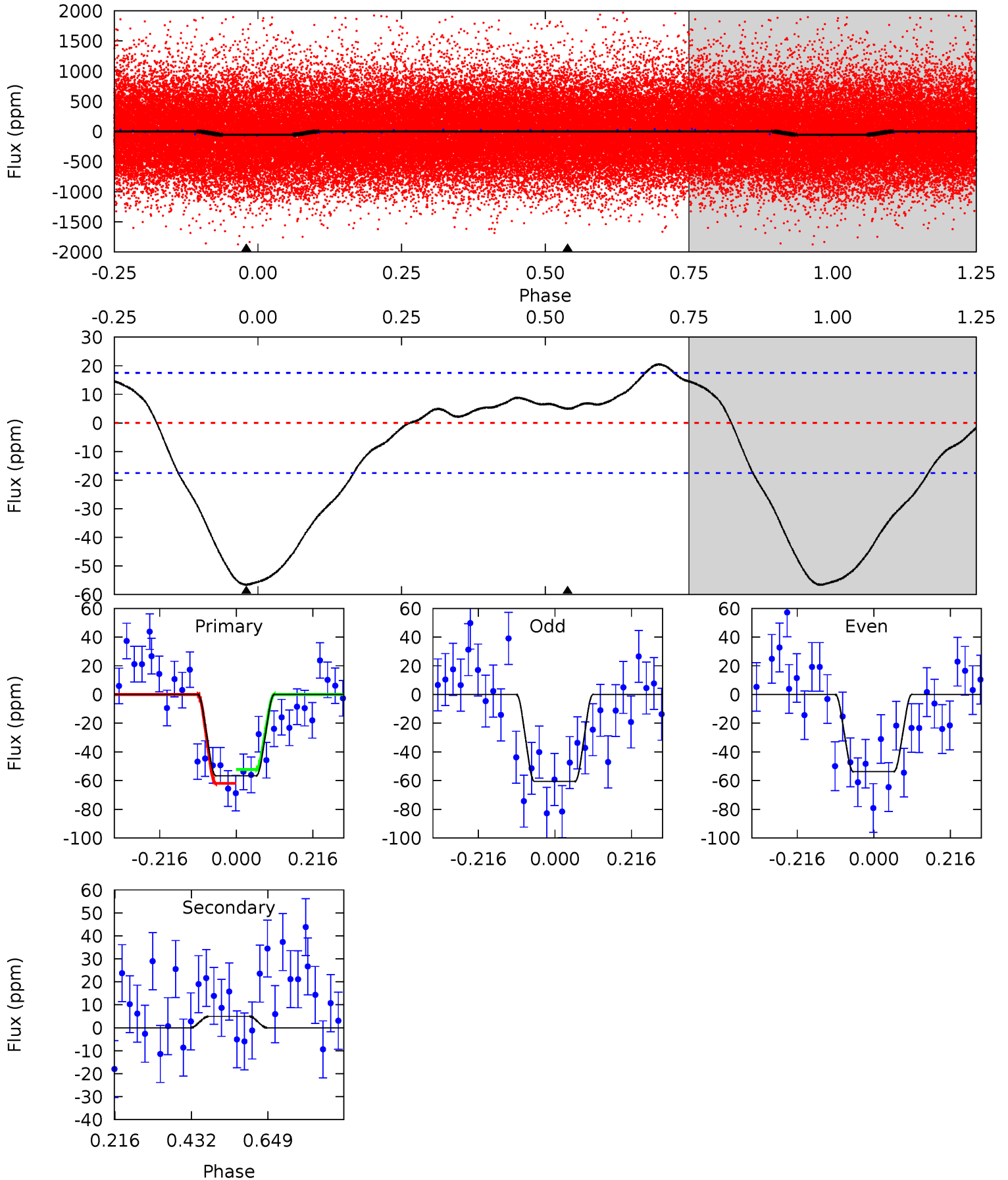
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.52	1.07	0	0	4.30	0.94	0.20	4.52	4.52	1.07	1.07	0.72	1.00	0.05	4.48



Alt Model-Shift Uniqueness Test

007032429-01, P = 0.566795 Days, E = 131.257079 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	-1.24	0	0	4.40	1.24	1.48	14.2	14.2	-1.24	-1.24	0.86	0.98	0.27	1.21



Stellar Parameters For KIC 007032429

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5598^{+169}_{-152}	$4.483^{+0.075}_{-0.162}$	$-0.140^{+0.300}_{-0.300}$	$0.888^{+0.229}_{-0.115}$	$0.874^{+0.104}_{-0.085}$	$1.761^{+0.640}_{-0.766}$
	+3%/-3%	+2%/-4%	+214%/-214%	+26%/-13%	+12%/-10%	+36%/-44%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007032429-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 3	$1.11^{+1.34}_{-0.75}$	2904^{+194}_{-132}	-2729^{+6787}_{-355}	$0.165^{+1.914}_{-0.165}$
Alt.	5 ± 4	$1.38^{+1.25}_{-0.88}$	2902^{+175}_{-131}	-3281^{+241}_{-854}	$-0.200^{+0.181}_{-1.549}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
 A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

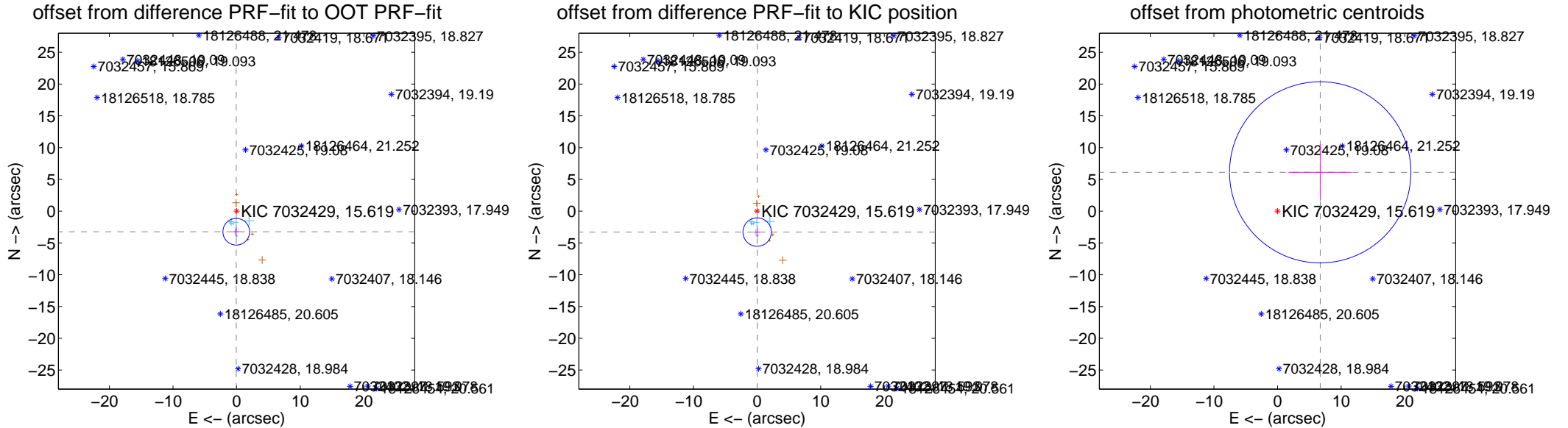
DV Centroid Data

Supplemental centroid analysis for 007032429-01. Kepler magnitude: 15.62. Transit SNR 3.05

There are 7 quarters with good PRF difference image offsets

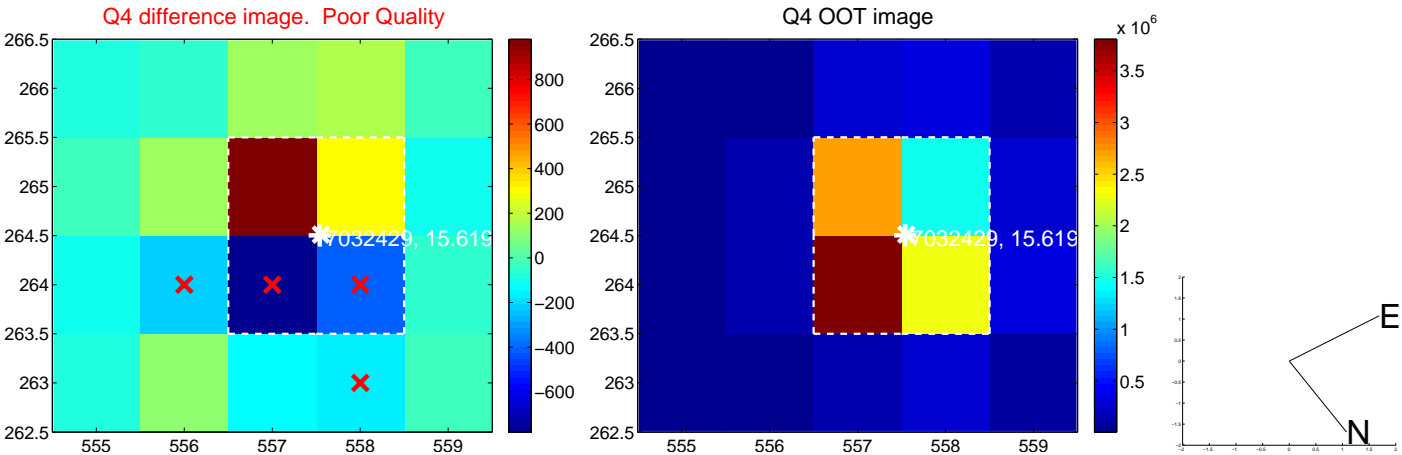
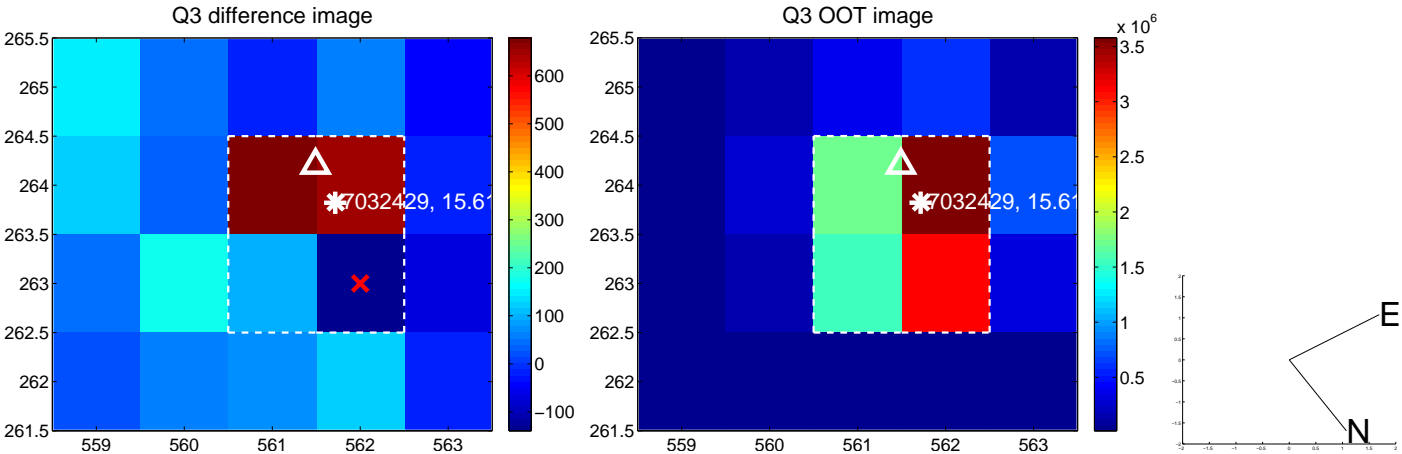
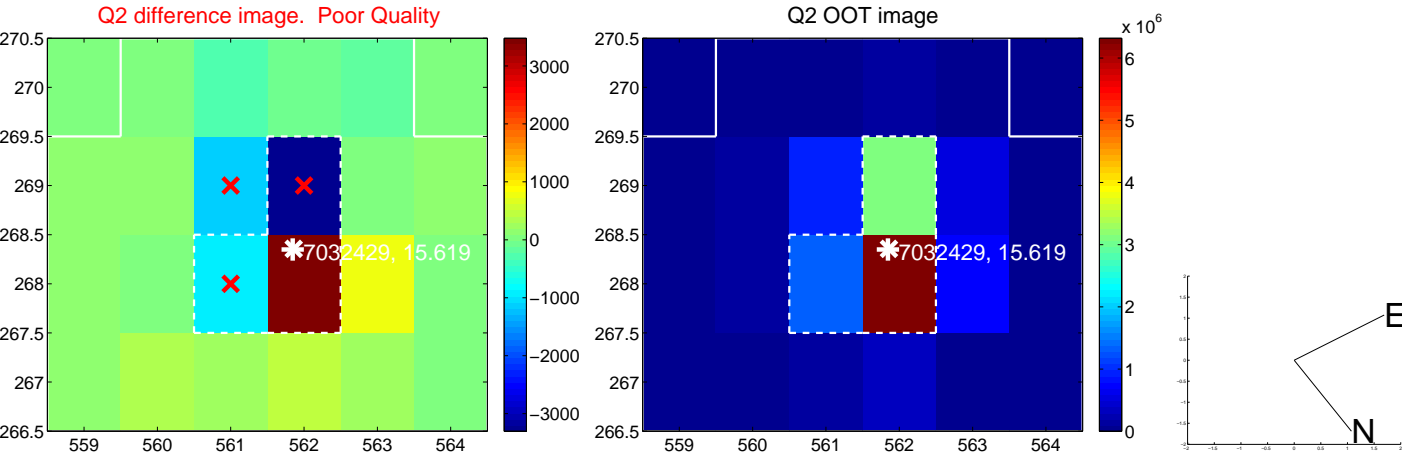
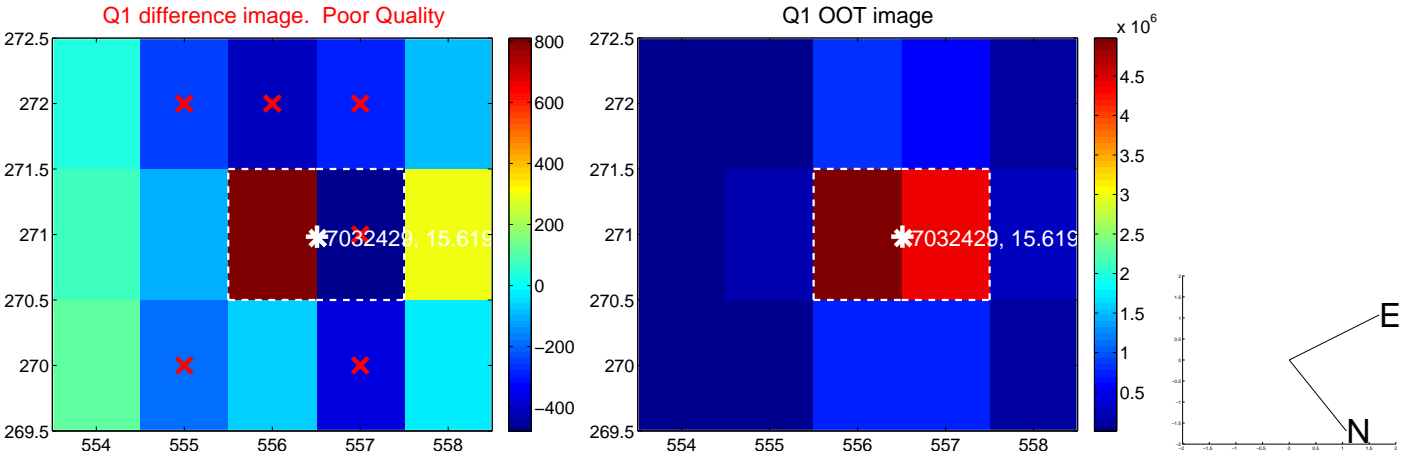
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.235 ± 0.700	4.62	0.055 ± 0.416	-3.235 ± 0.704
PRF-fit source offset from KIC position	3.290 ± 0.745	4.41	-0.016 ± 0.446	-3.290 ± 0.744
photometric centroid source offset	9.08 ± 4.75	1.91	-6.71 ± 4.98	6.11 ± 4.45

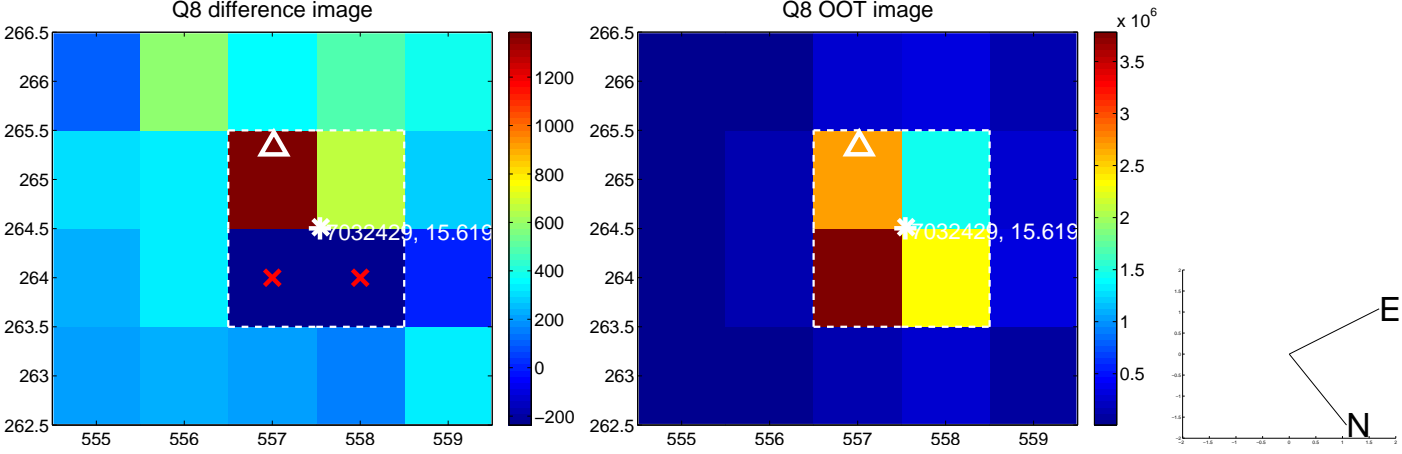
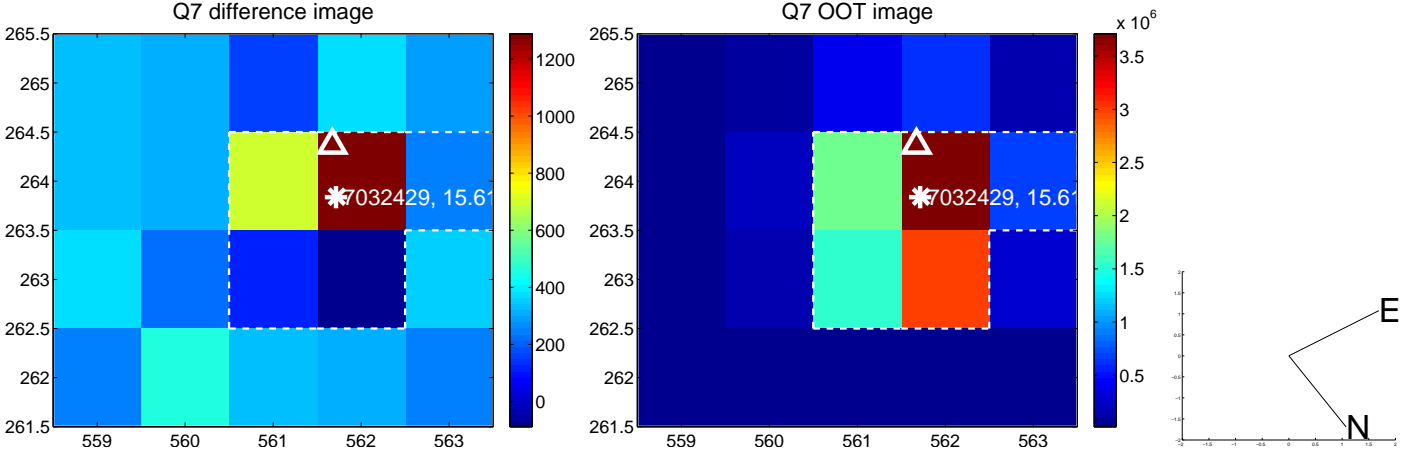
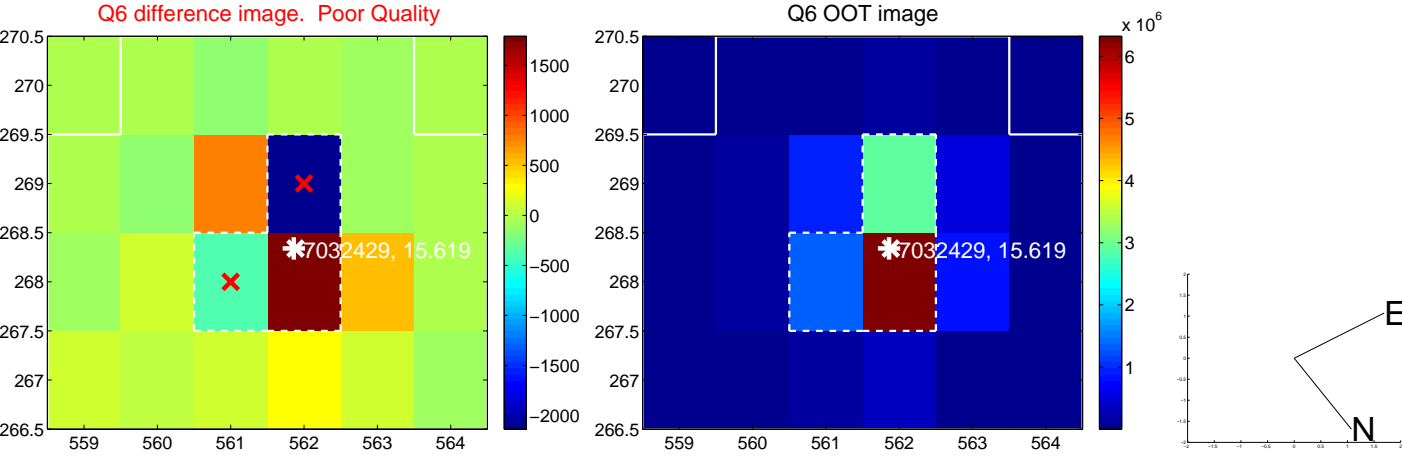
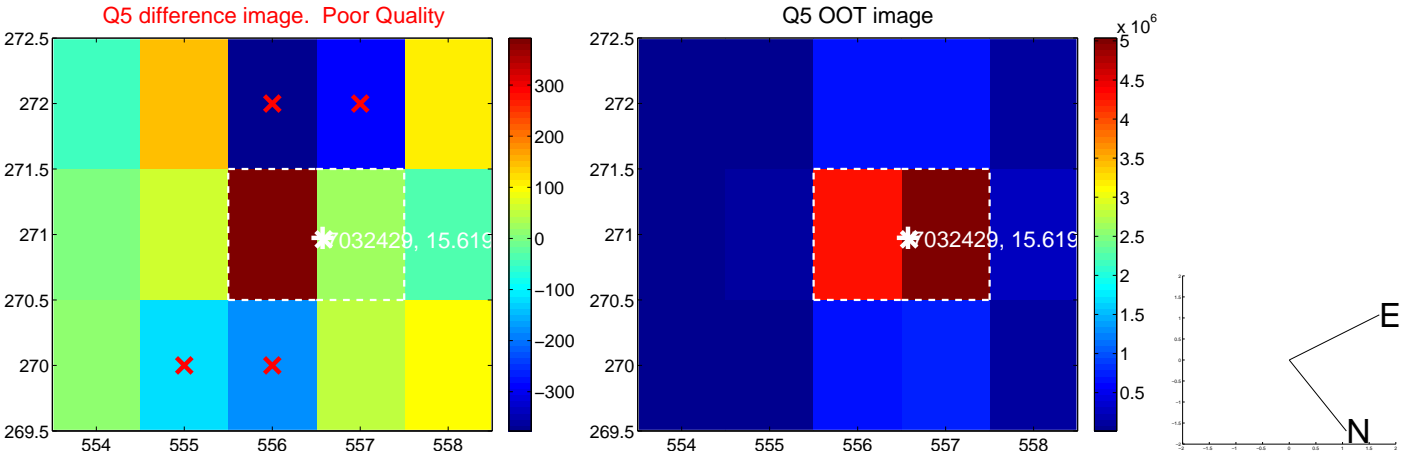


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

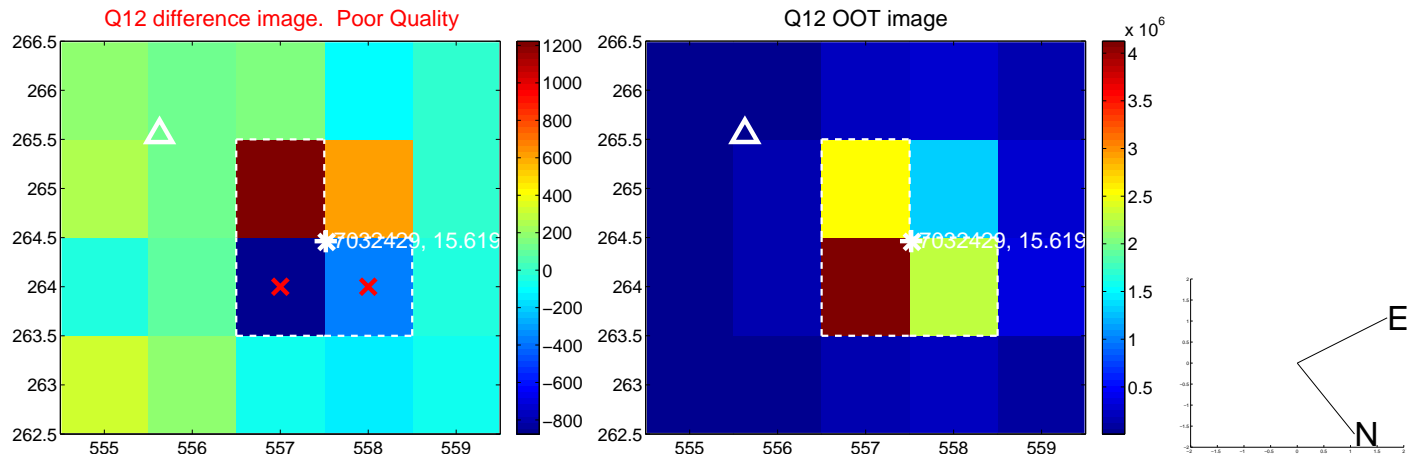
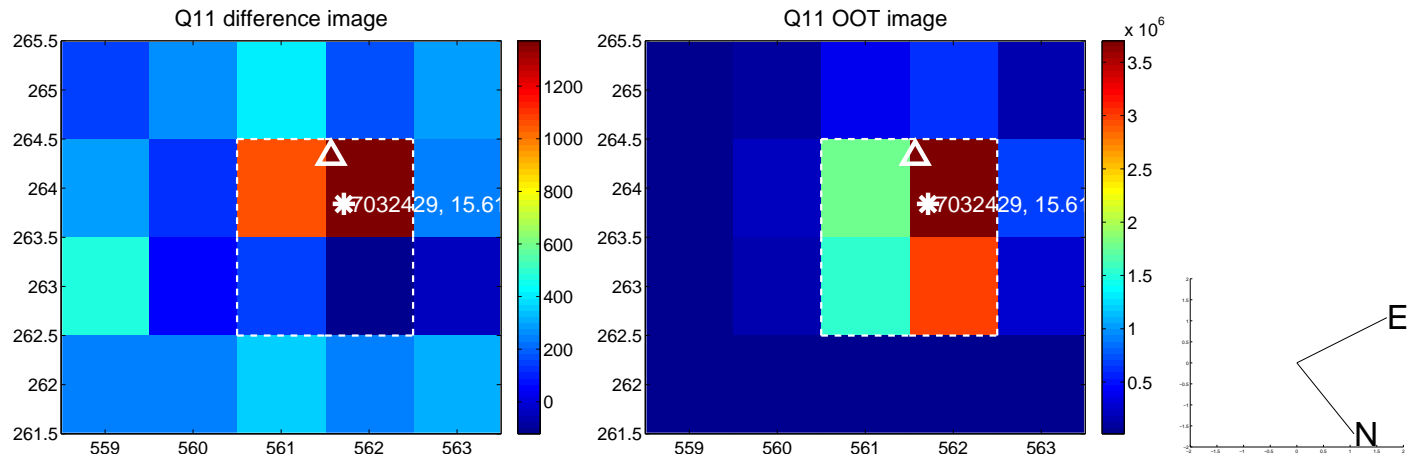
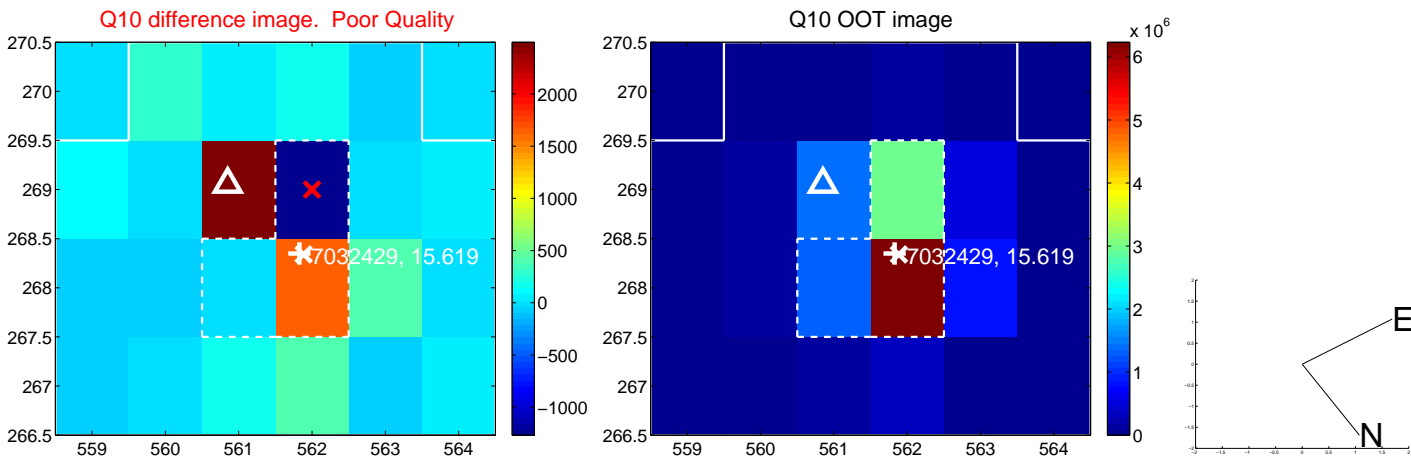
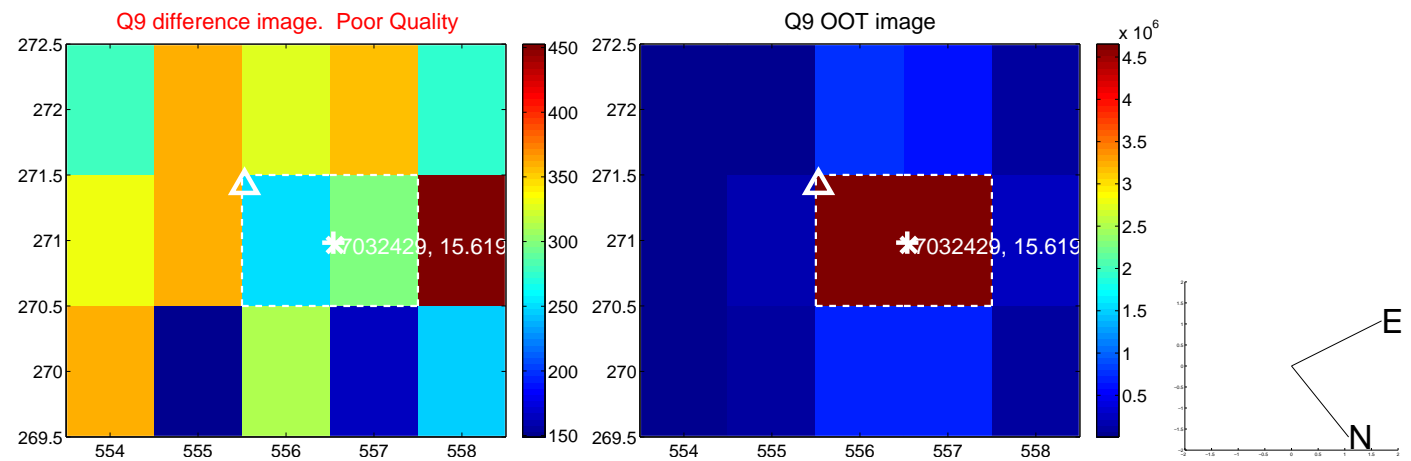
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



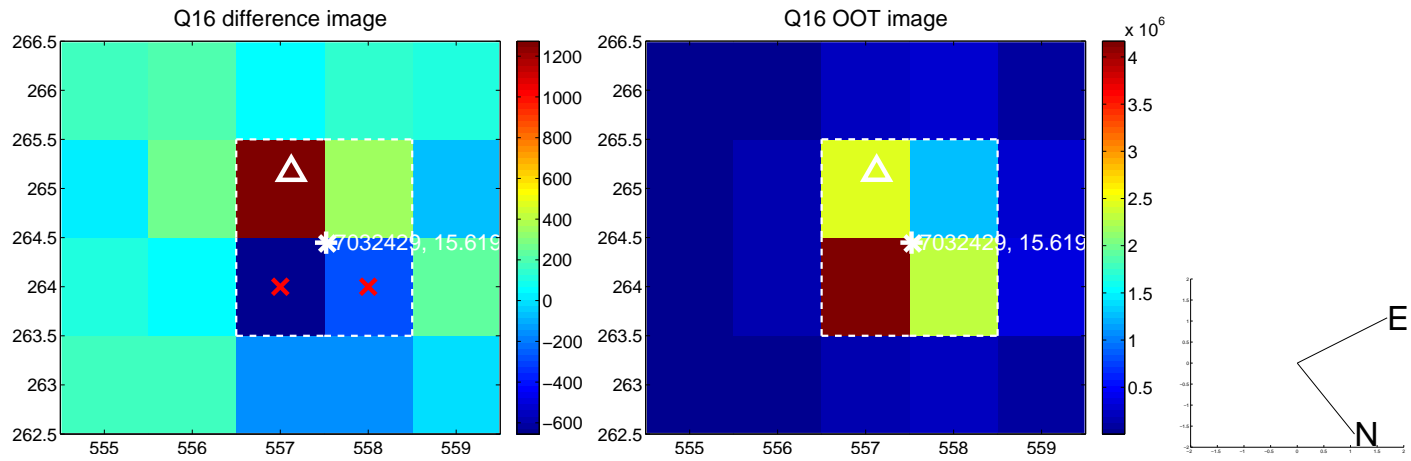
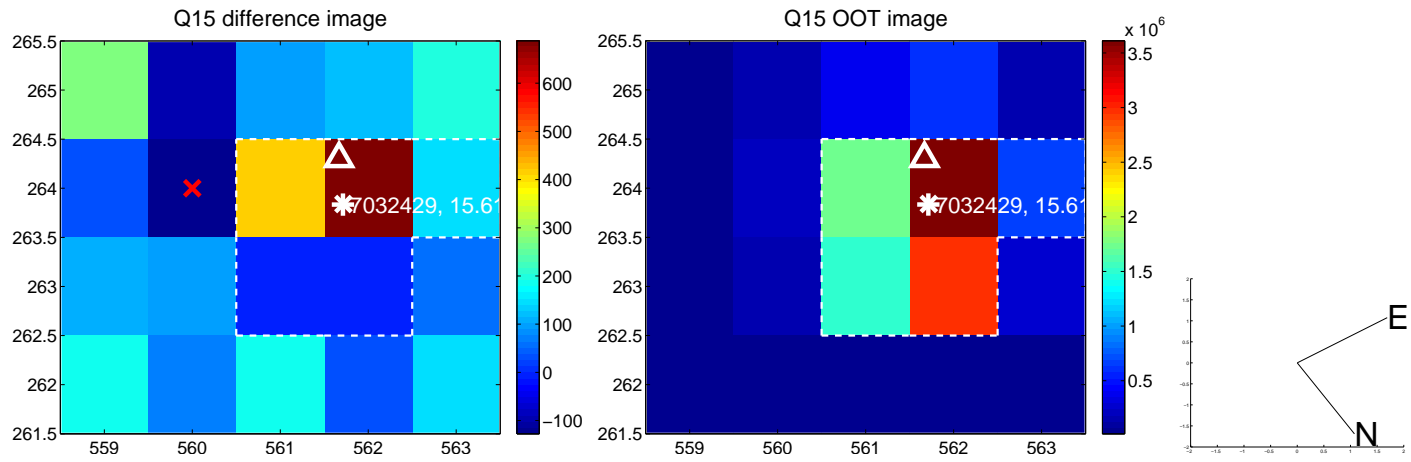
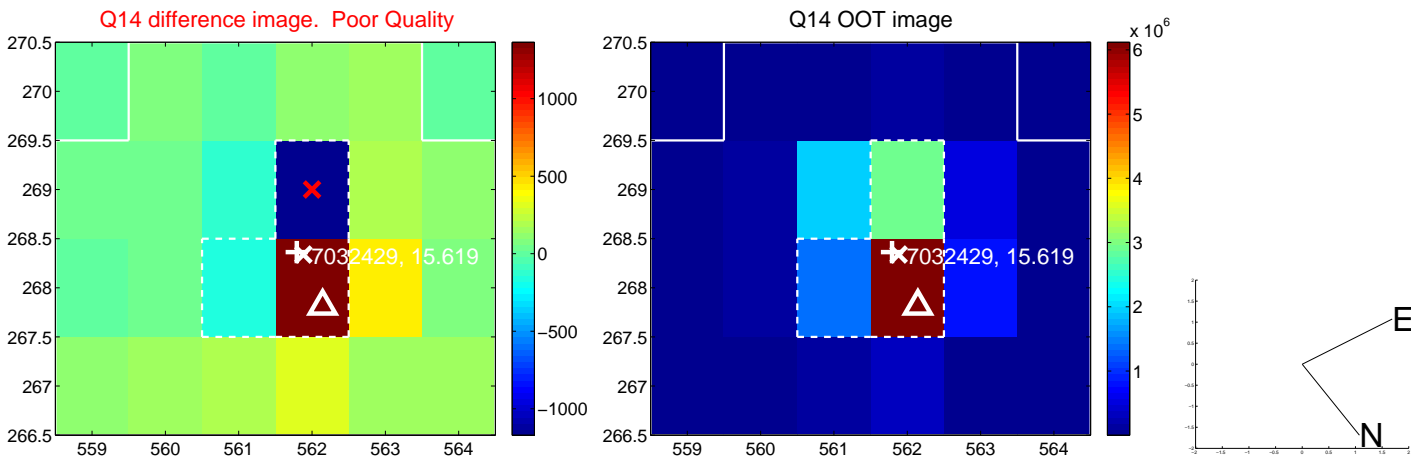
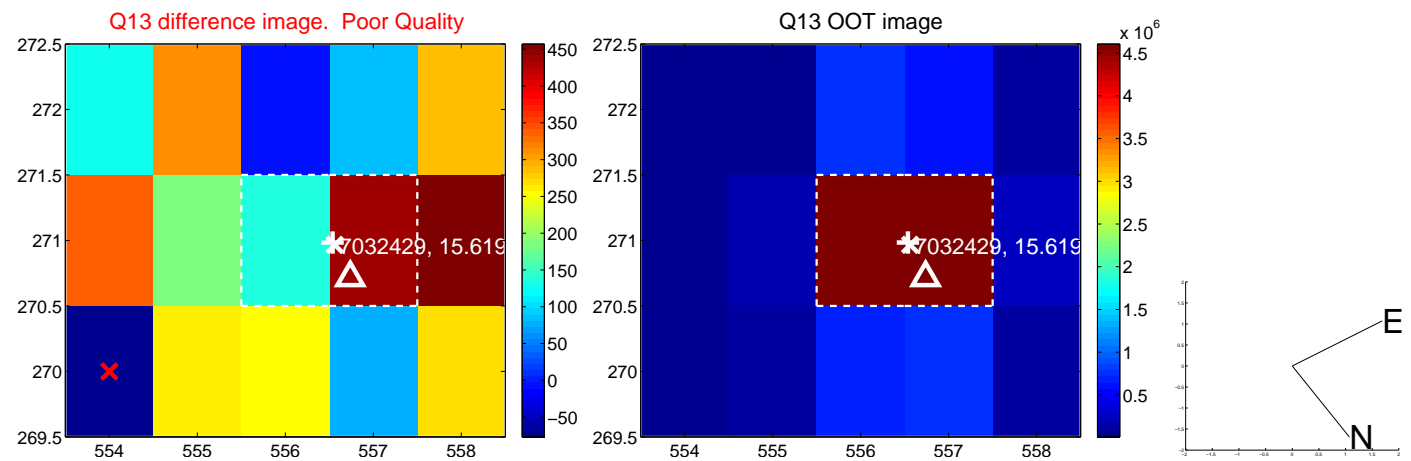
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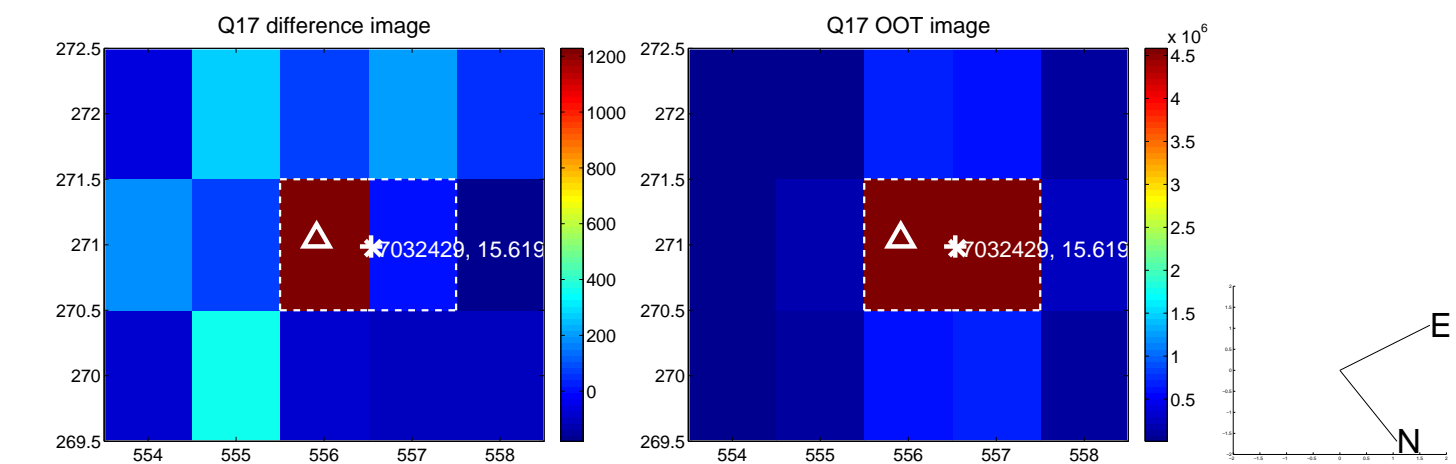
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



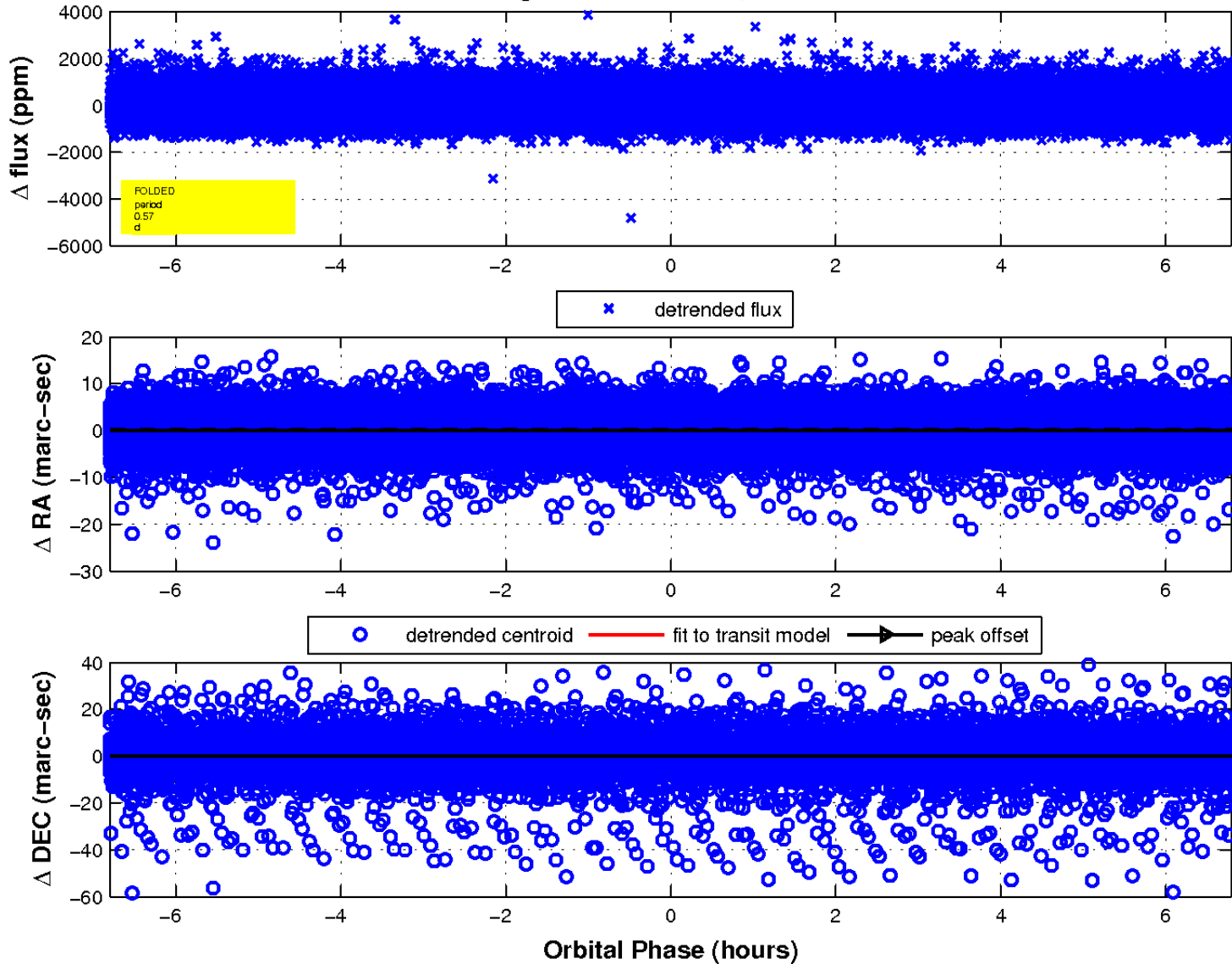
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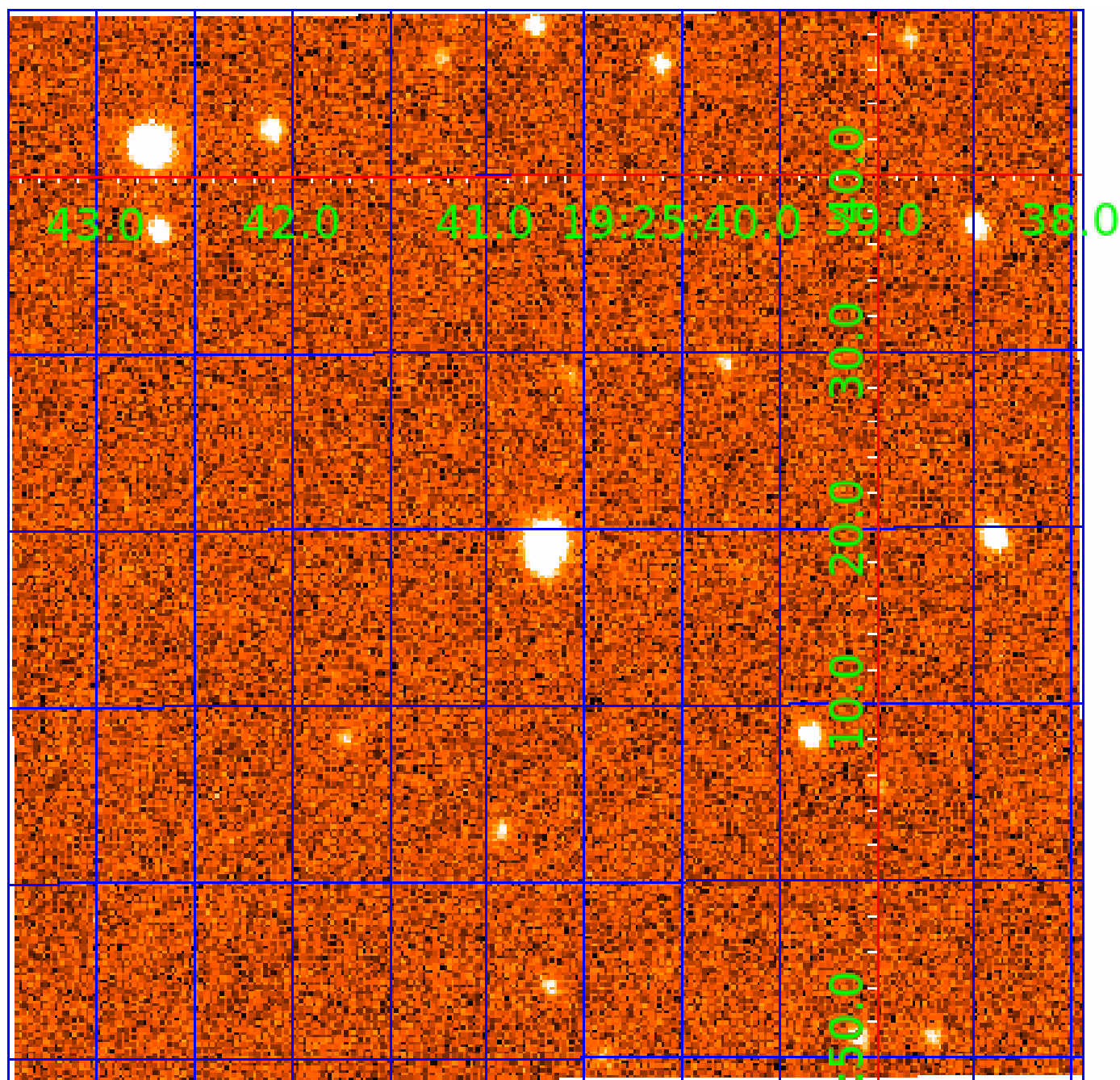


fluxWeightedCentroids, Planet 1 of 5



UKIRT Image

Declination



KIC 007032429

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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007032429-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

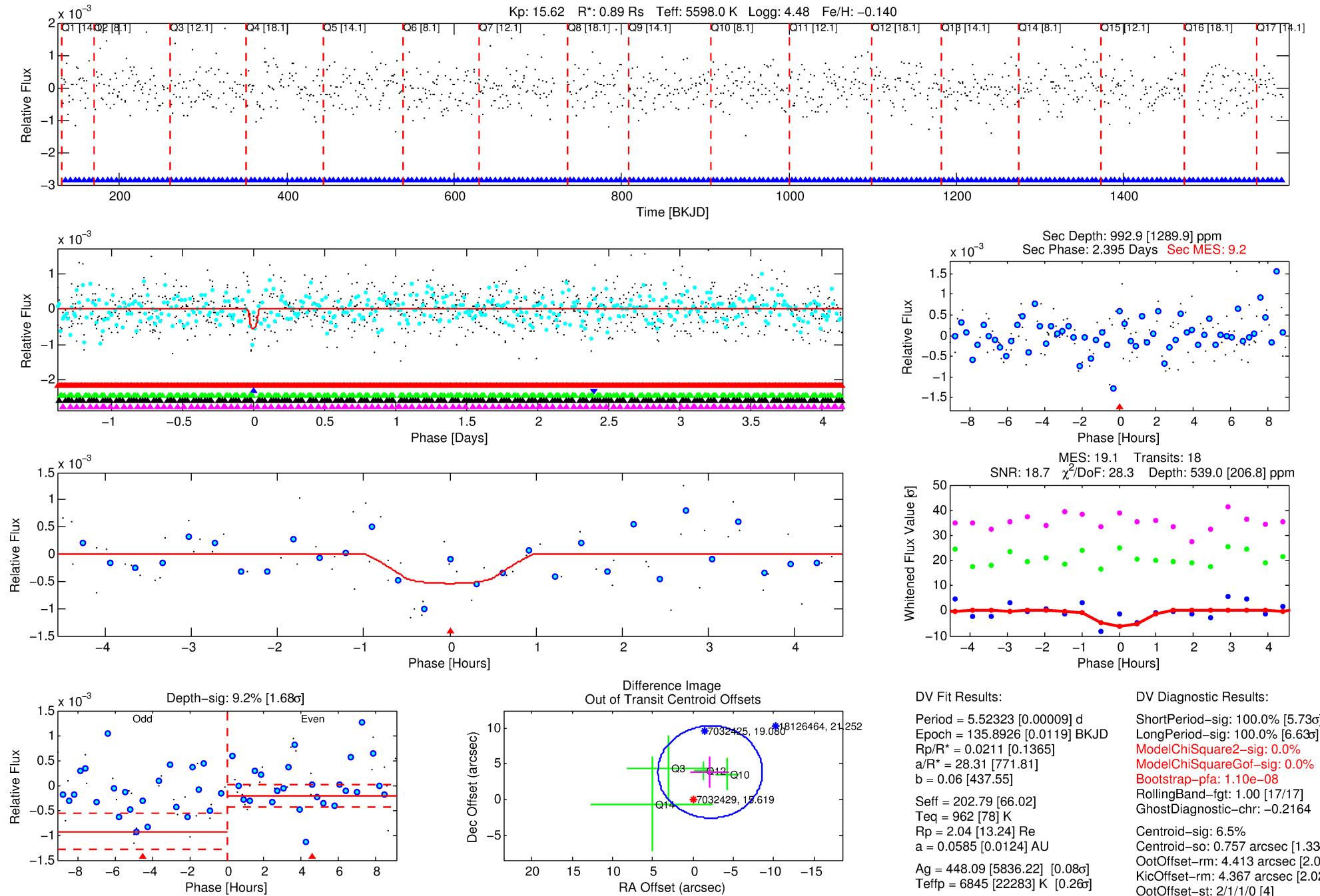
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007032429-02

No Significant Match Found

DV One-Page Summary

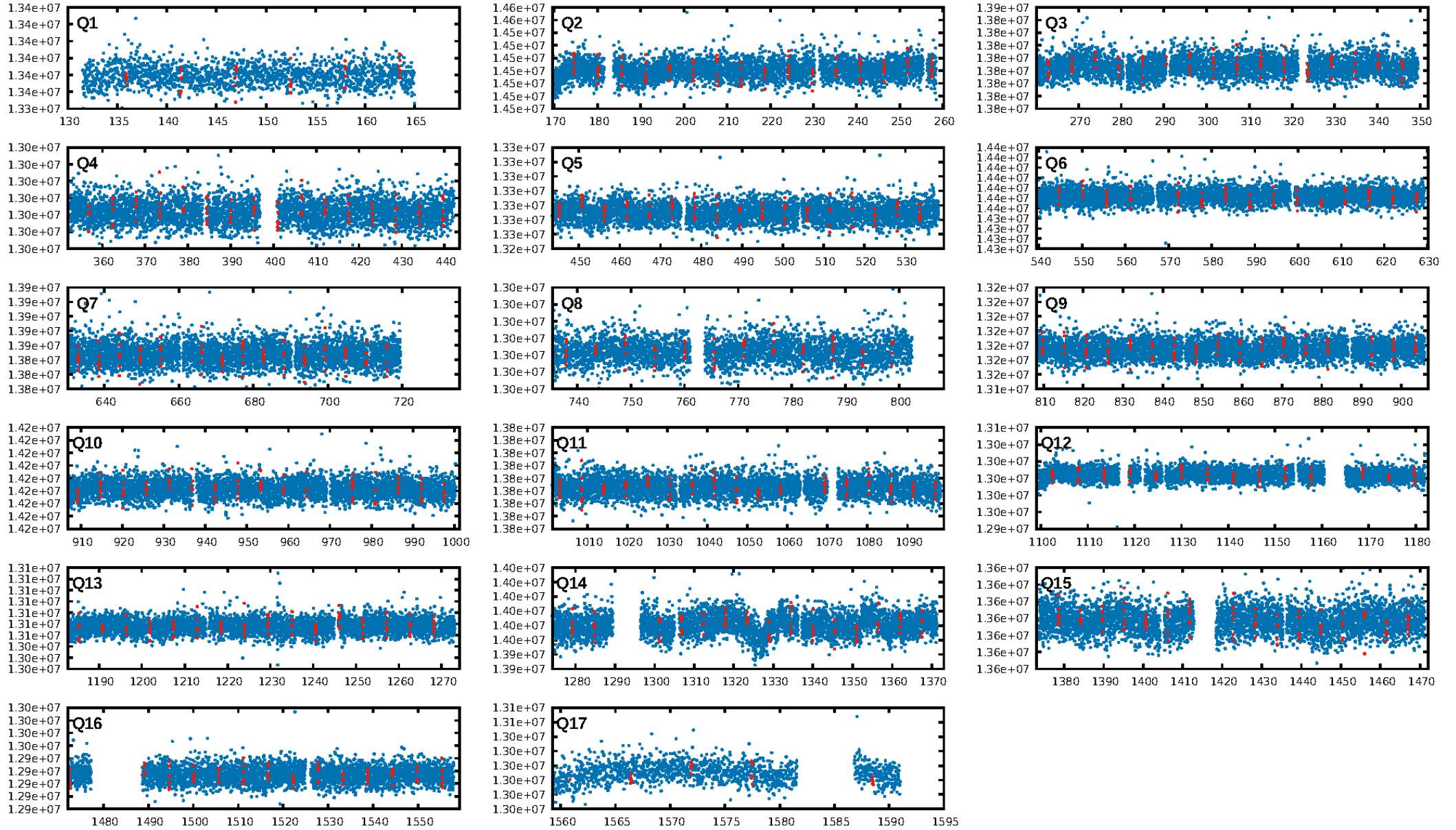
KIC: 7032429 Candidate: 2 of 5 Period: 5.523 d



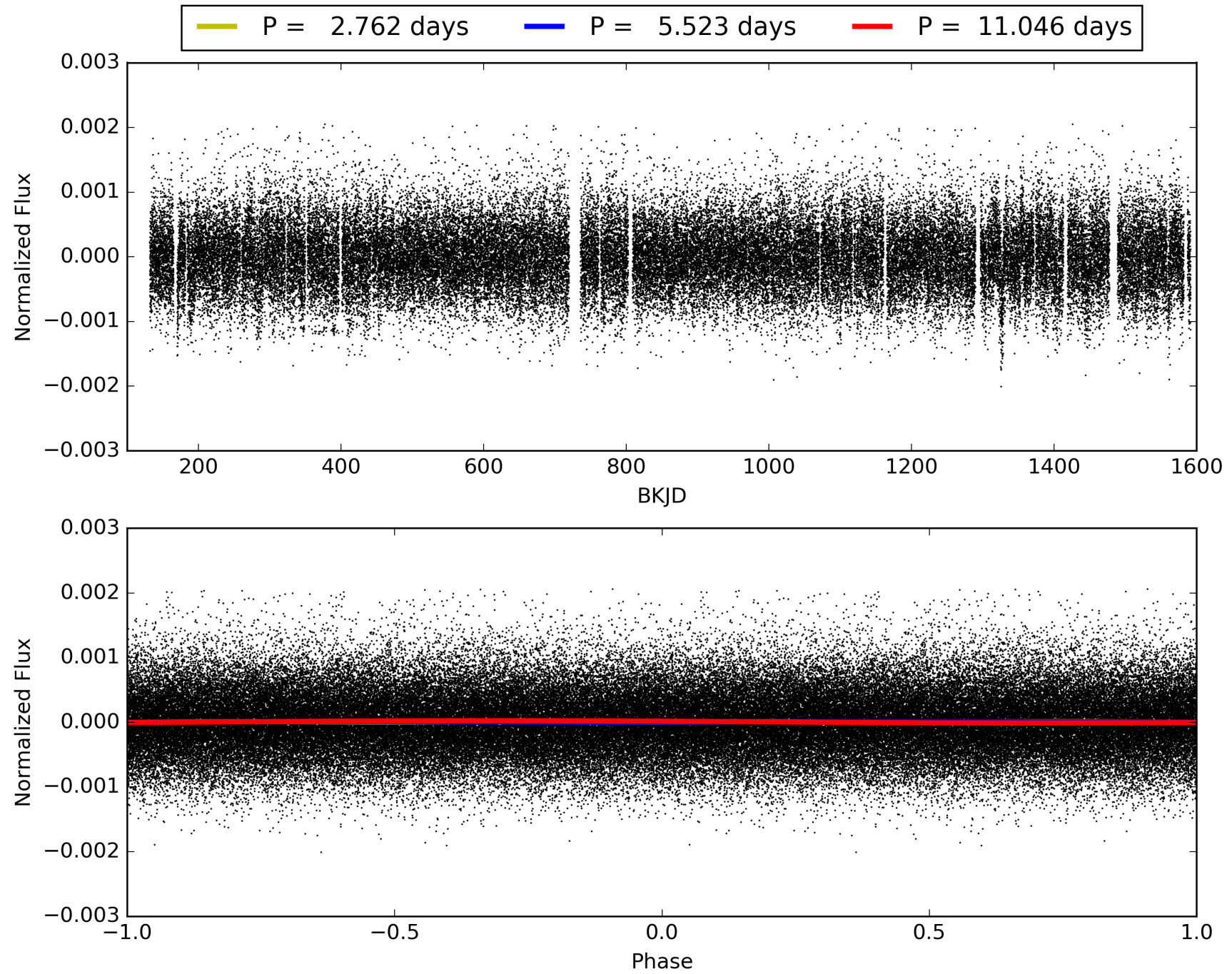
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:10:34 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007032429-02, PDC Light Curves

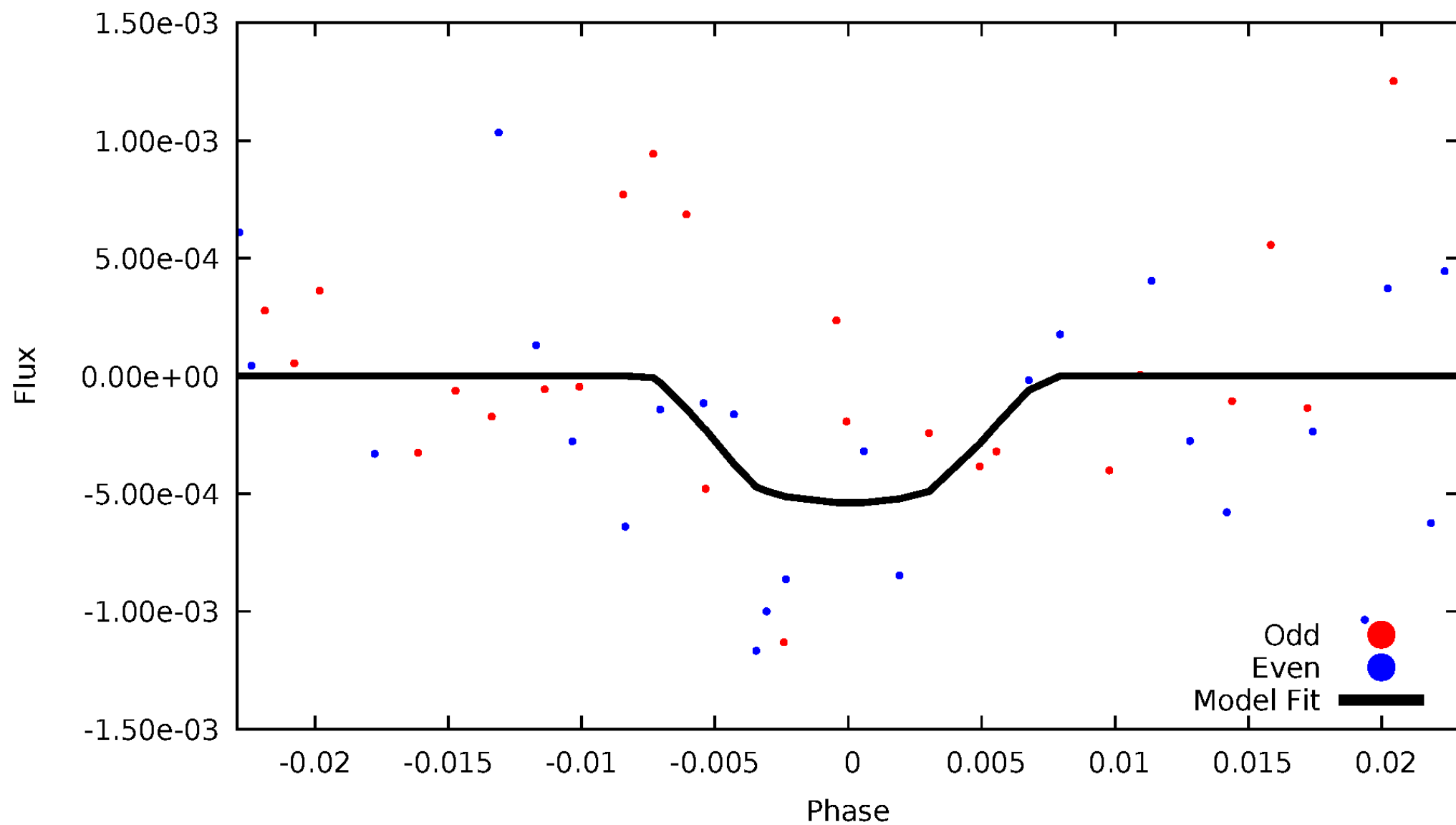


TCE 007032429-02



DV Odd/Even

TCE 007032429-02

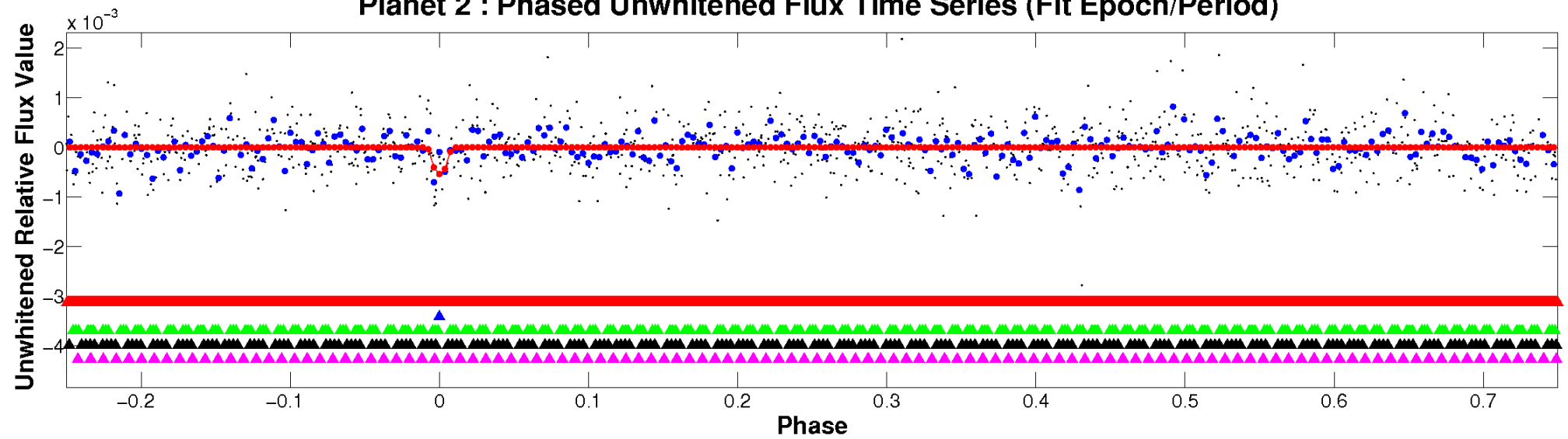


ALT Odd/Even

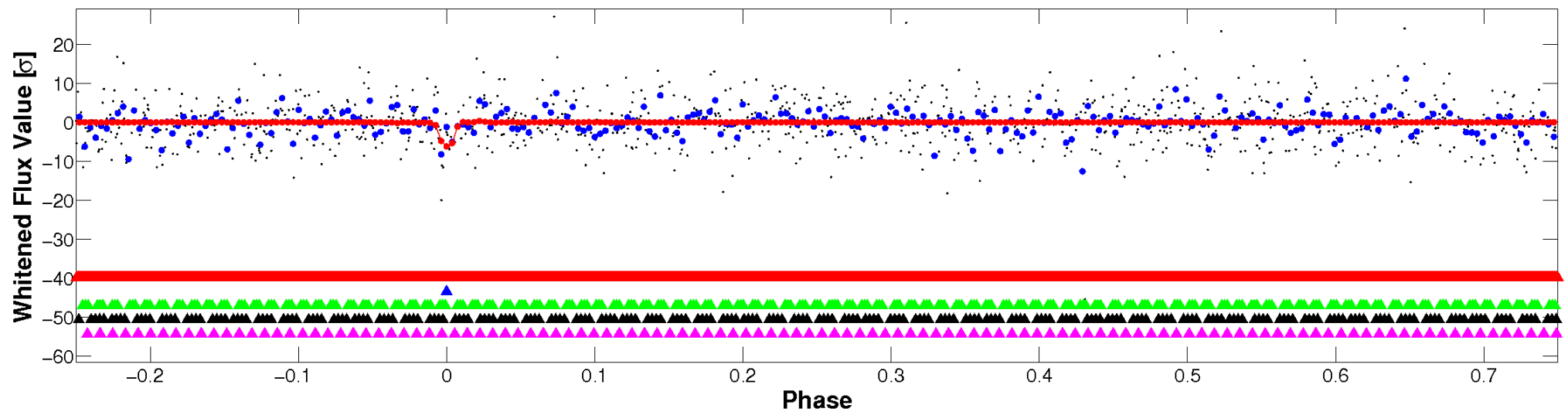
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

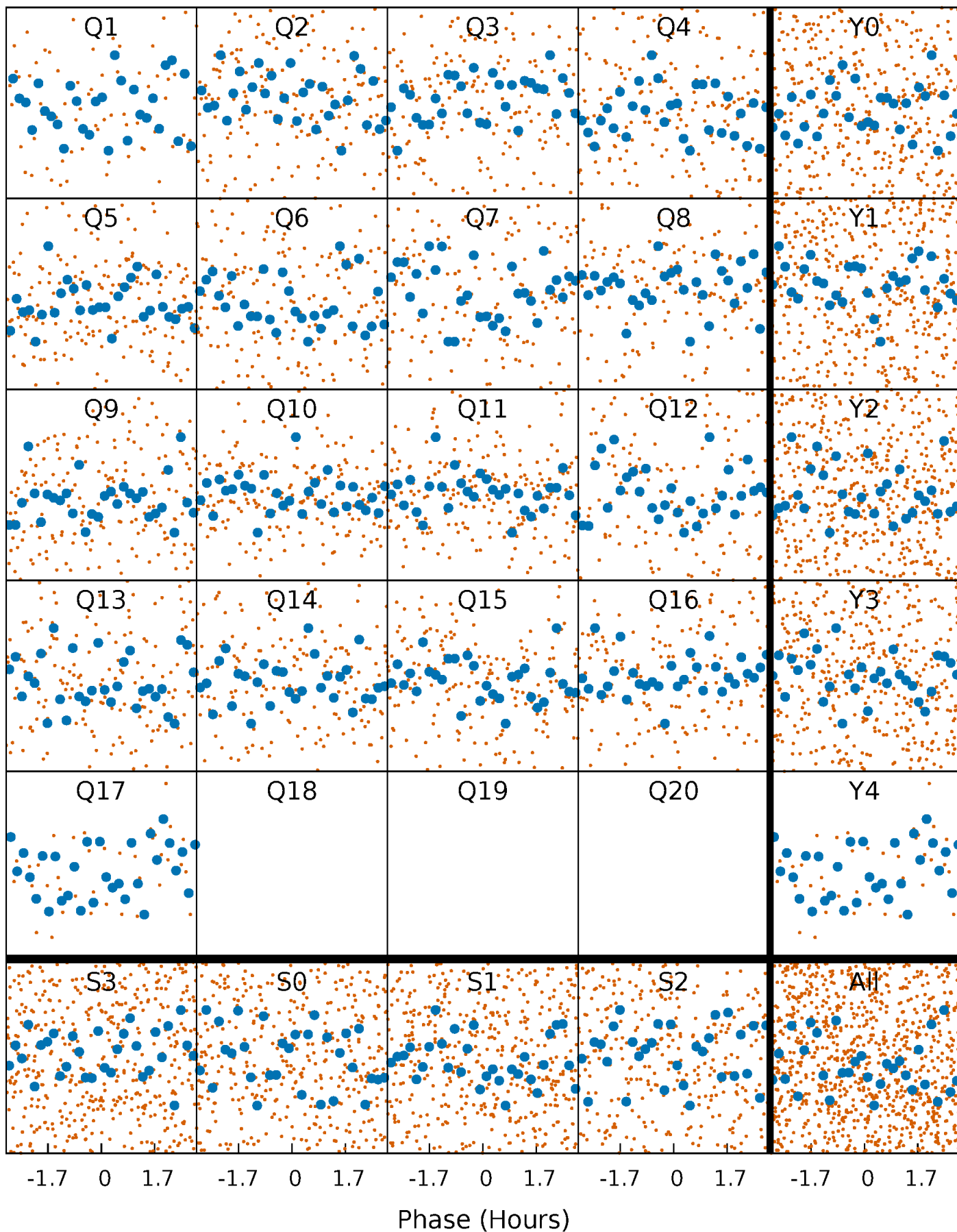


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



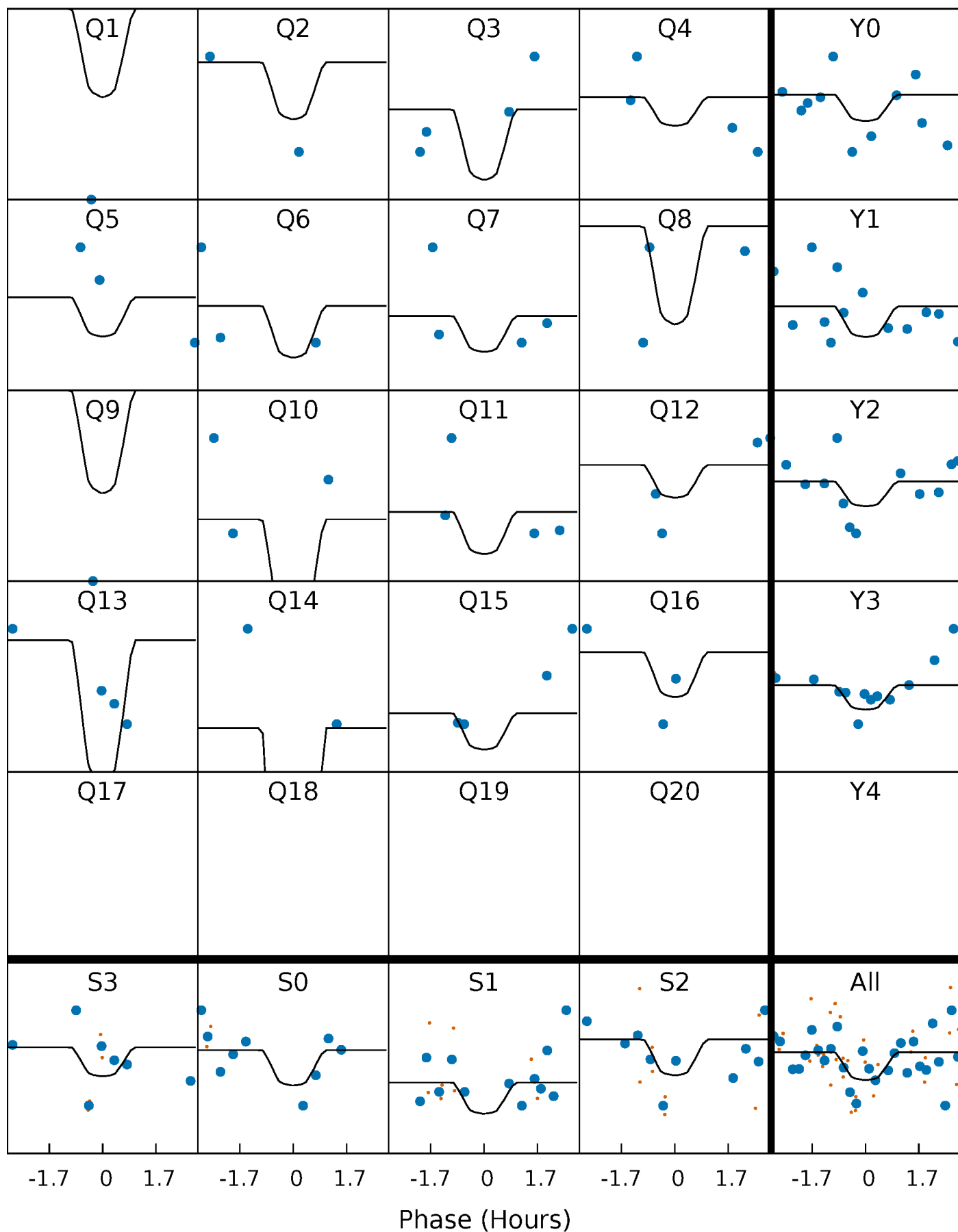
PDC Quarter-Phased Transit Curves

TCE 007032429-02 P= 5.523228 Days $T_0=135.892614$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007032429-02 P= 5.523228 Days $T_0=135.892614$ (BKJD)

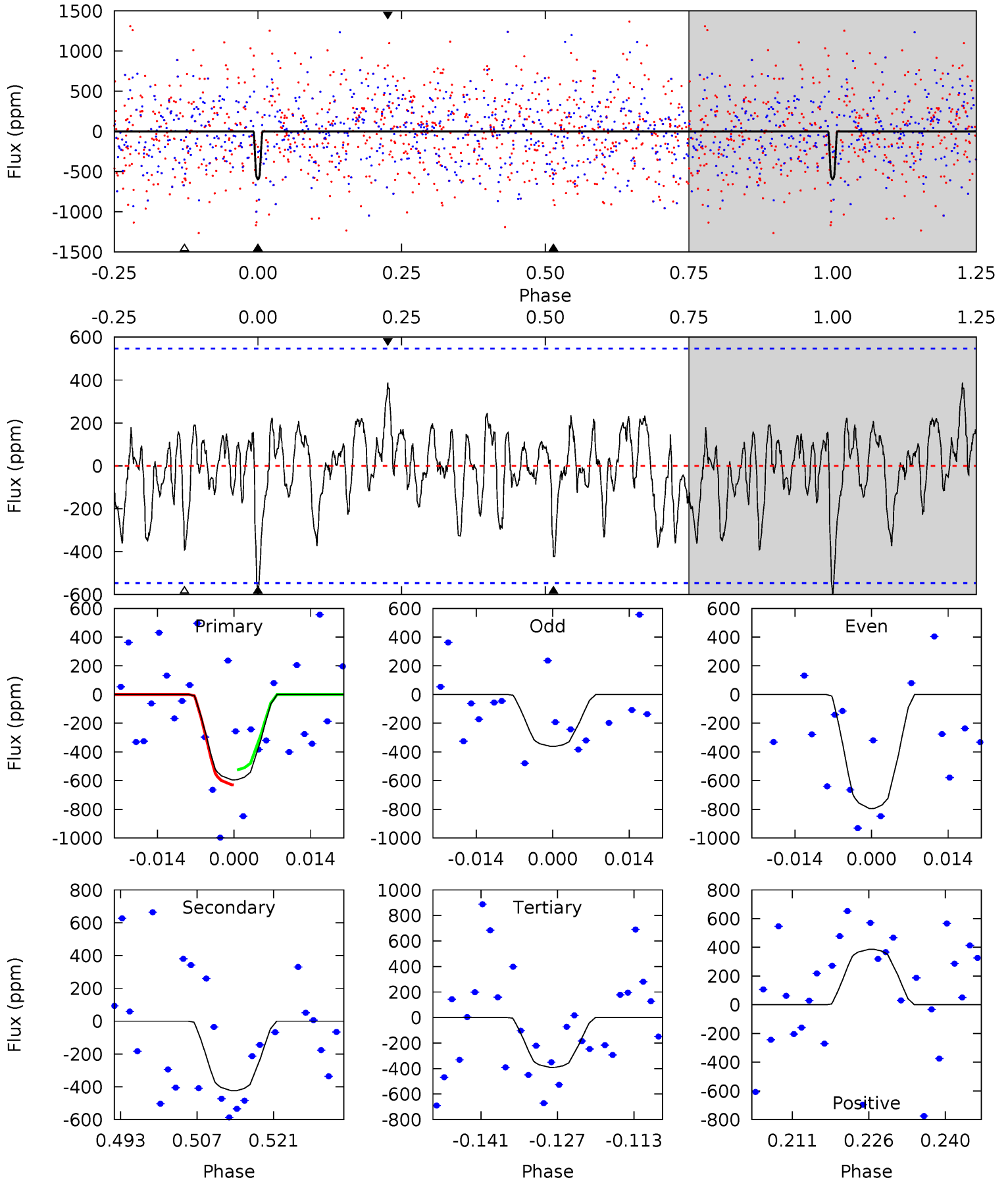


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007032429-02, P = 5.523228 Days, E = 130.369386 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.41	3.85	3.55	3.51	4.96	2.45	1.30	1.85	1.89	0.30	0.34	1.96	0	0.39	0.44



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007032429

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5598^{+169}_{-152}	$4.483^{+0.075}_{-0.162}$	$-0.140^{+0.300}_{-0.300}$	$0.888^{+0.229}_{-0.115}$	$0.874^{+0.104}_{-0.085}$	$1.761^{+0.640}_{-0.766}$
	+3%/-3%	+2%/-4%	+214%/-214%	+26%/-13%	+12%/-10%	+36%/-44%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007032429-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-424 ± 110	$9.57^{+10.71}_{-6.62}$	1367^{+81}_{-67}	3164^{+1628}_{-643}	$8.676^{+86.727}_{-6.940}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

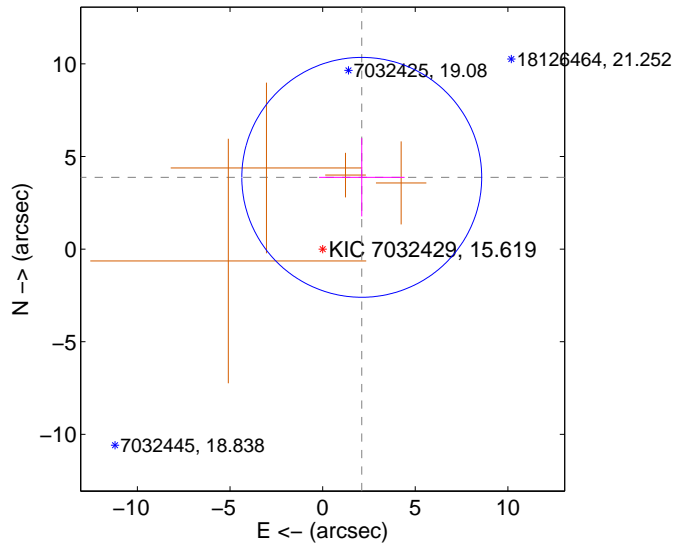
Supplemental centroid analysis for 007032429-02. Kepler magnitude: 15.62. Transit SNR 18.67

There are 0 quarters with good PRF difference image offsets

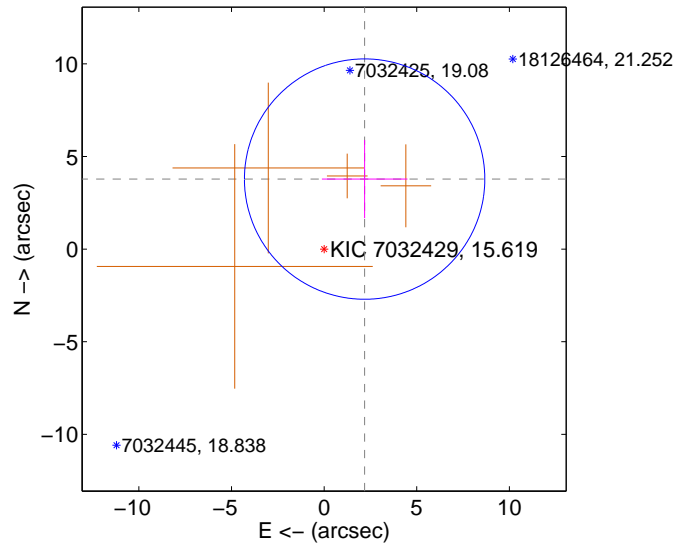
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.413 ± 2.159	2.04	-2.112 ± 2.310	3.875 ± 2.112
PRF-fit source offset from KIC position	4.367 ± 2.163	2.02	-2.187 ± 2.310	3.780 ± 2.112
photometric centroid source offset	0.76 ± 0.57	1.33	0.60 ± 0.59	0.46 ± 0.53

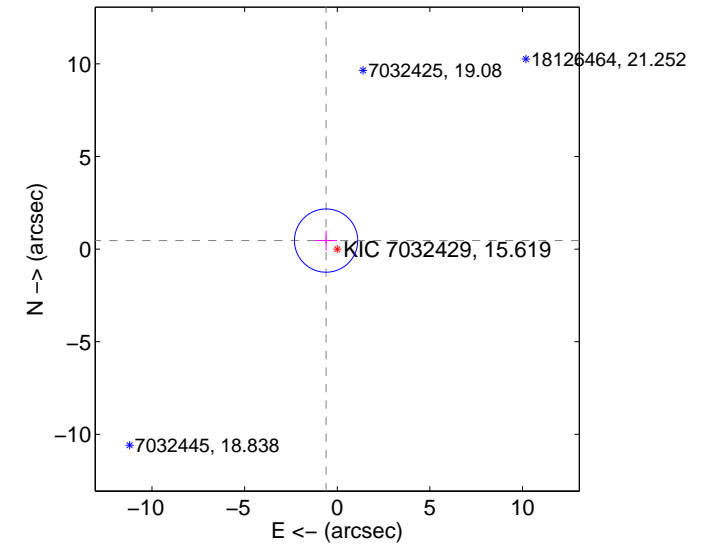
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

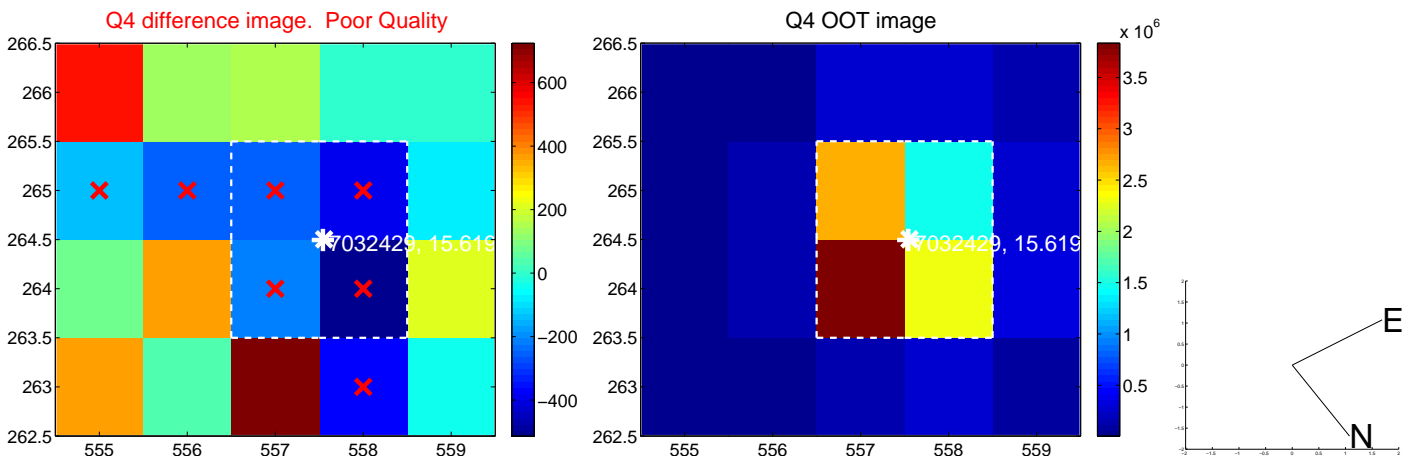
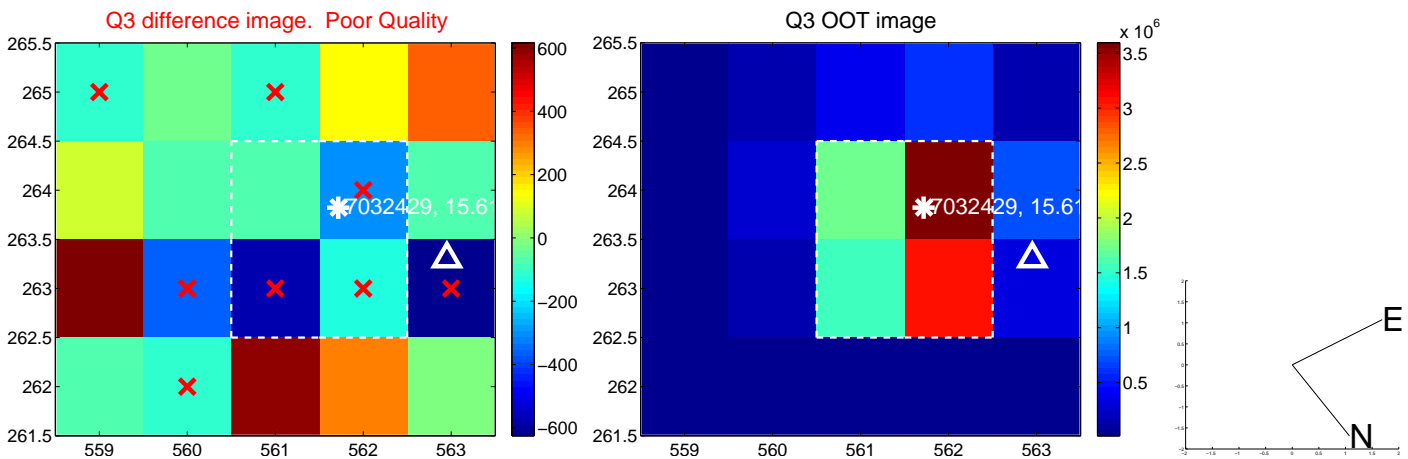
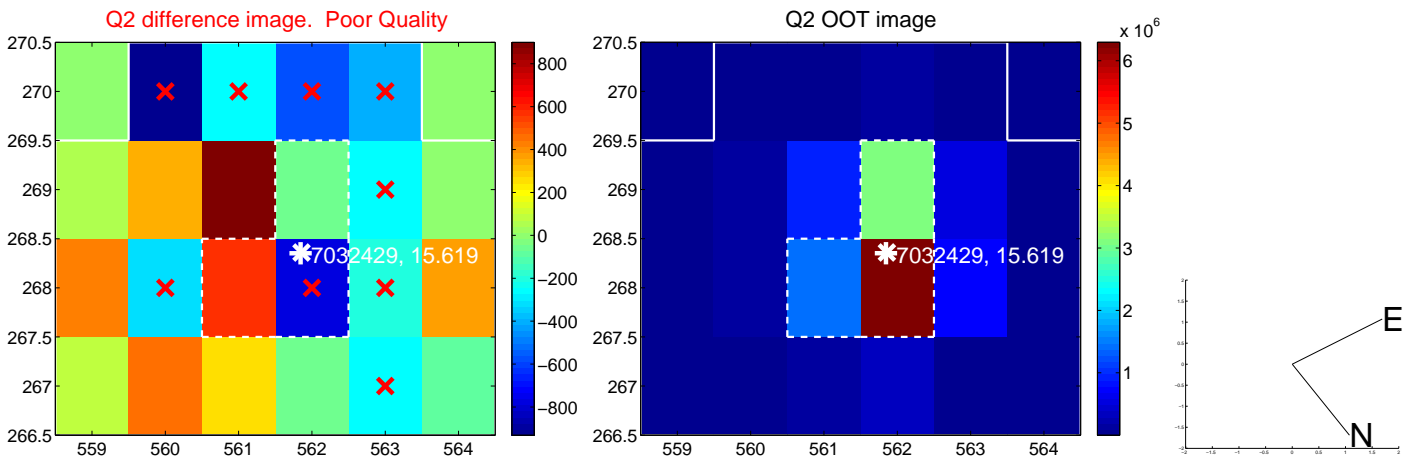
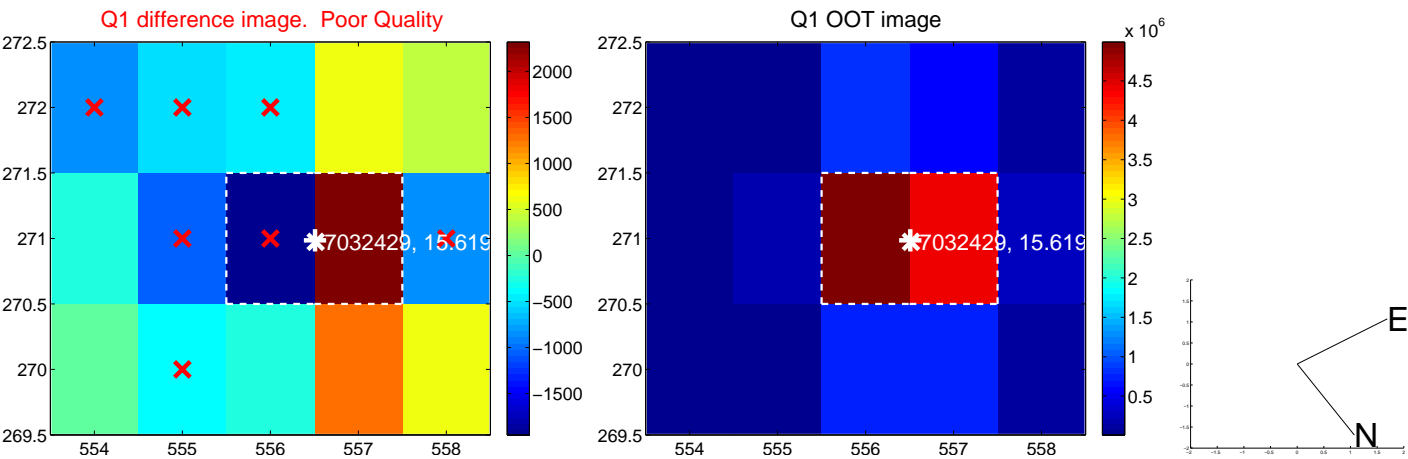


offset from photometric centroids

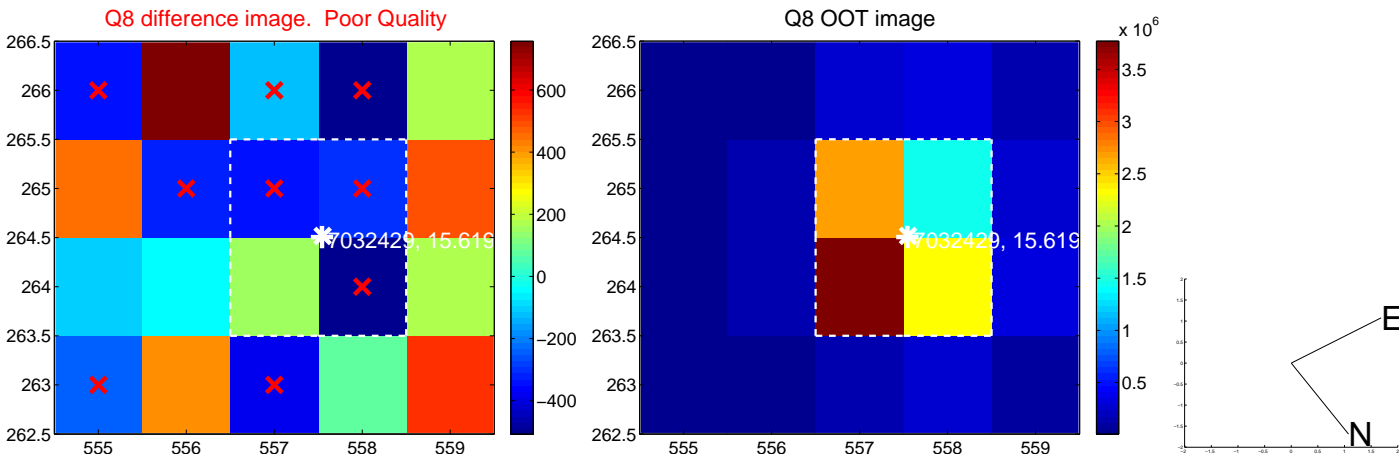
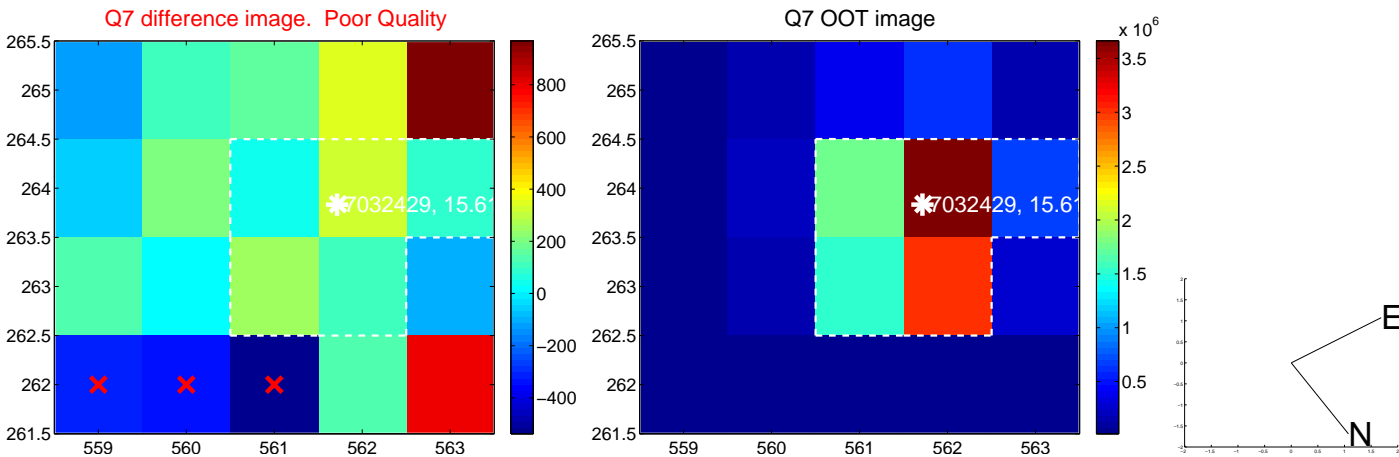
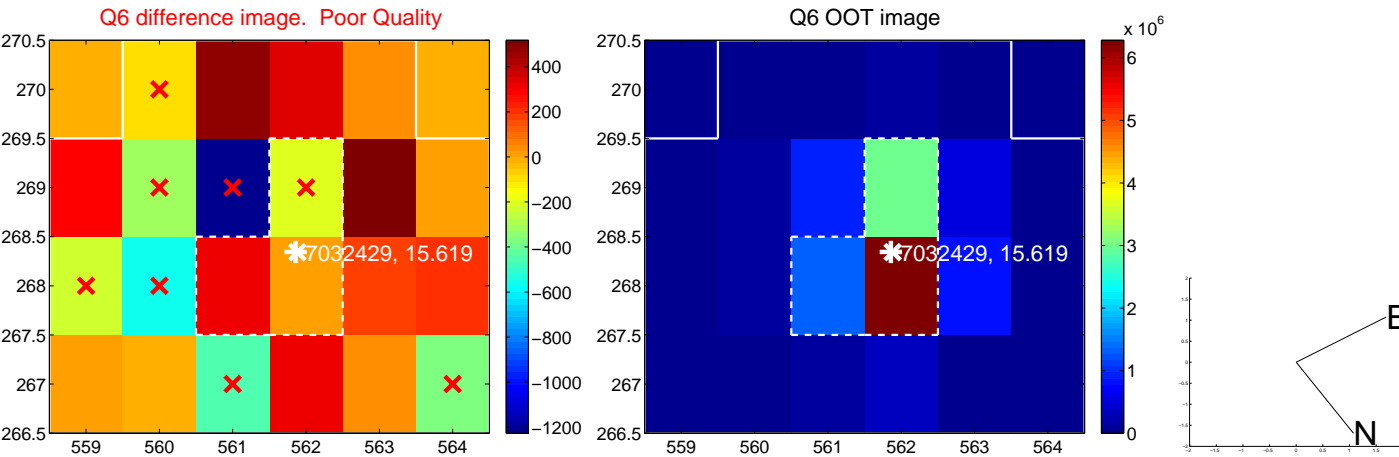
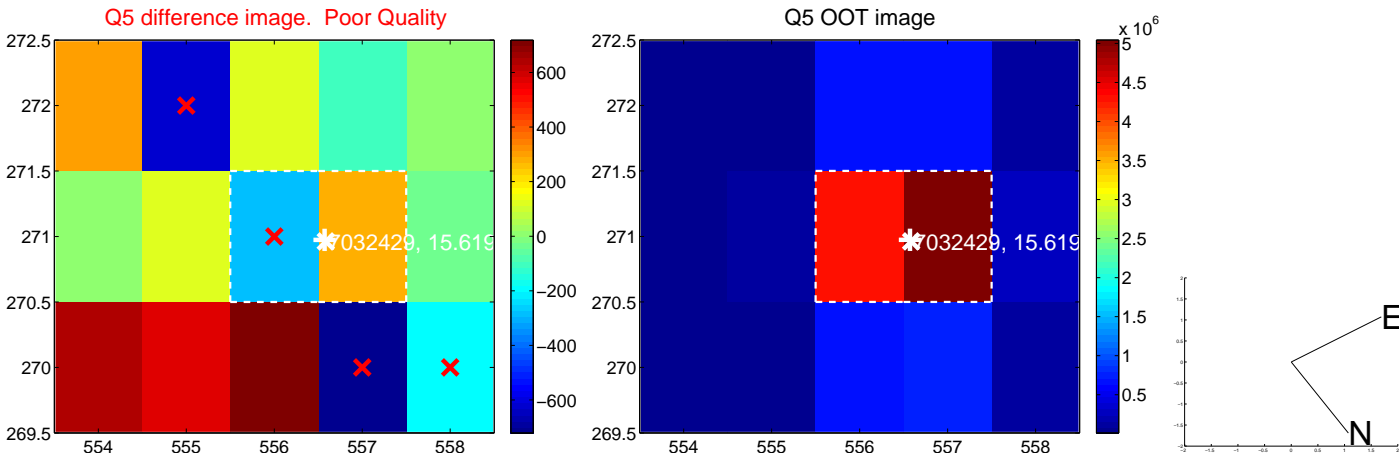


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

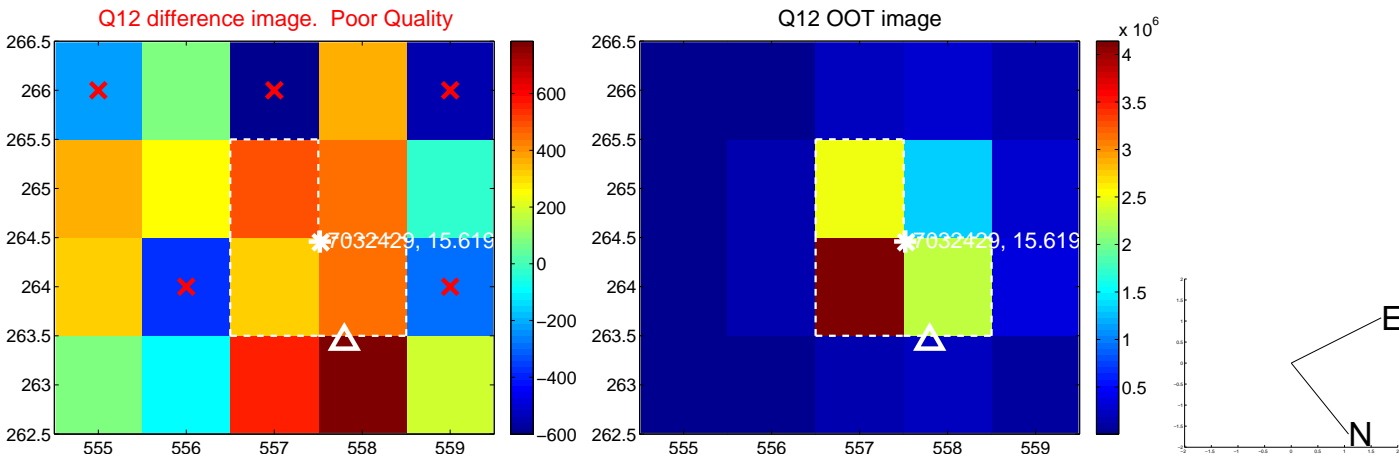
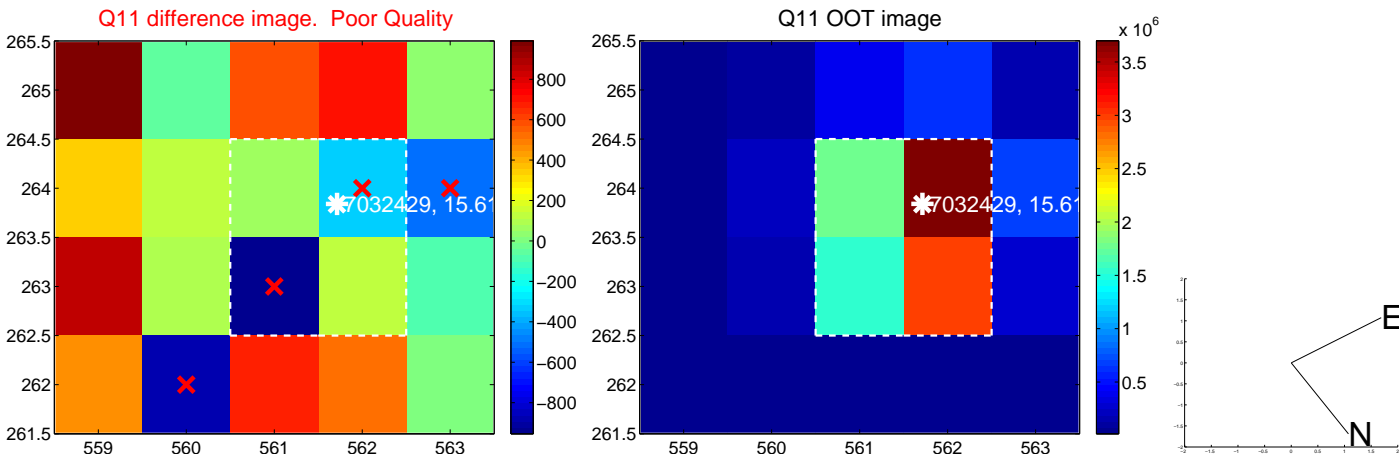
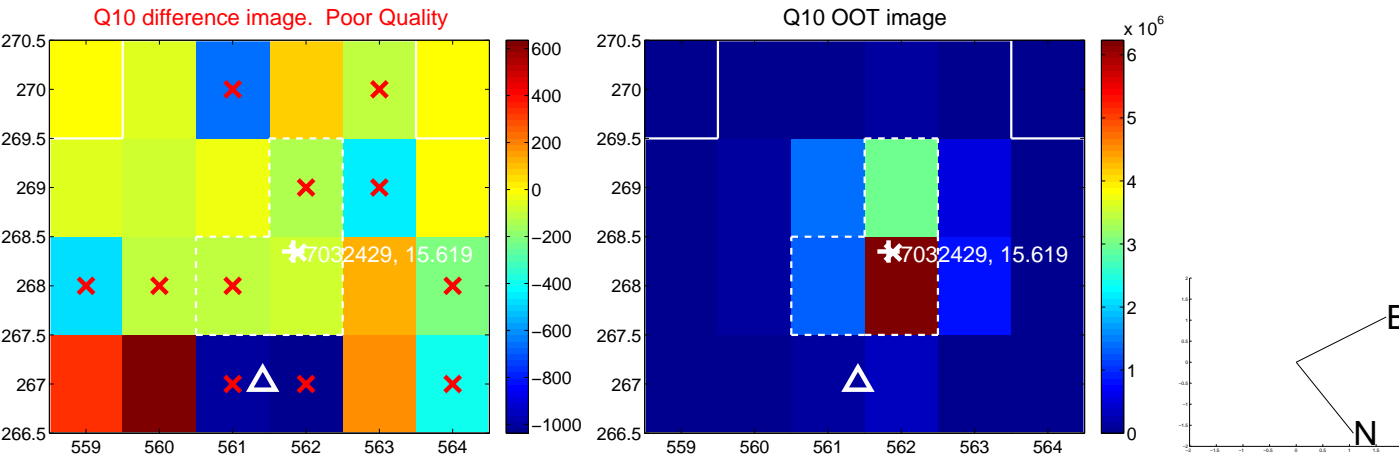
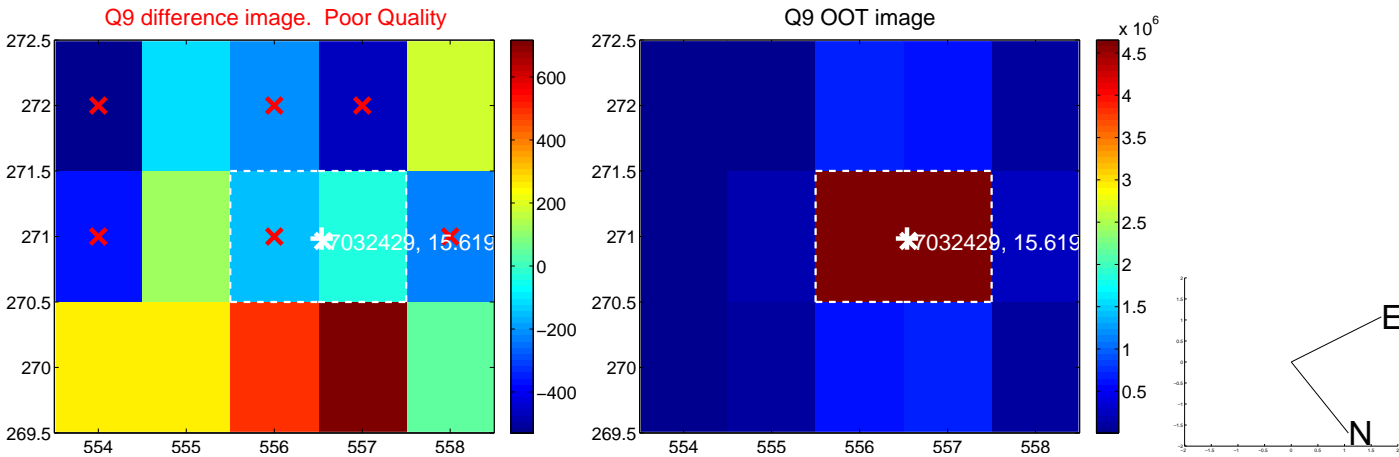
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



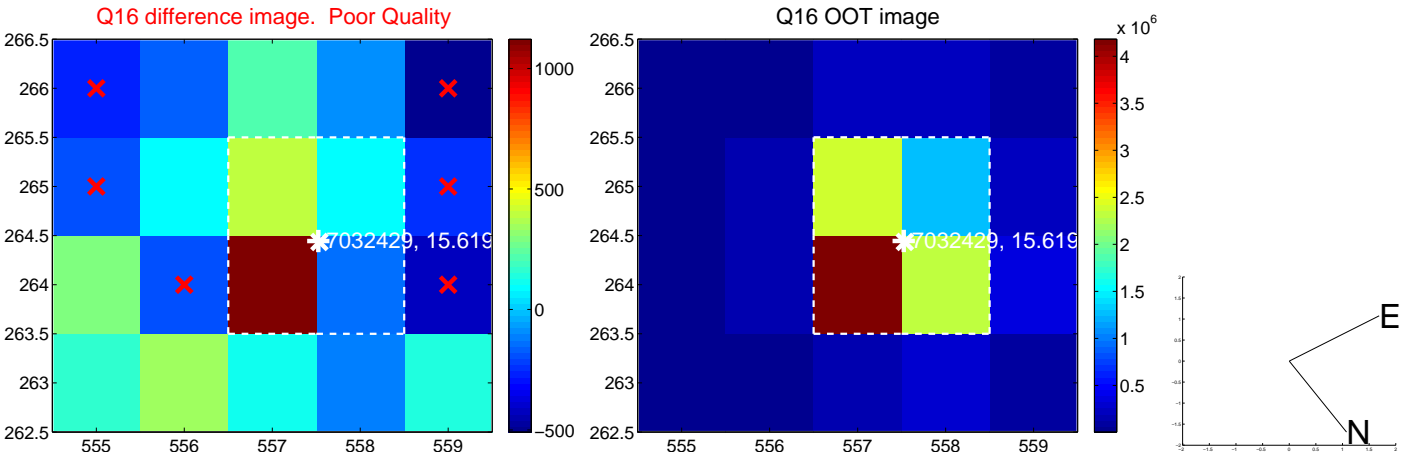
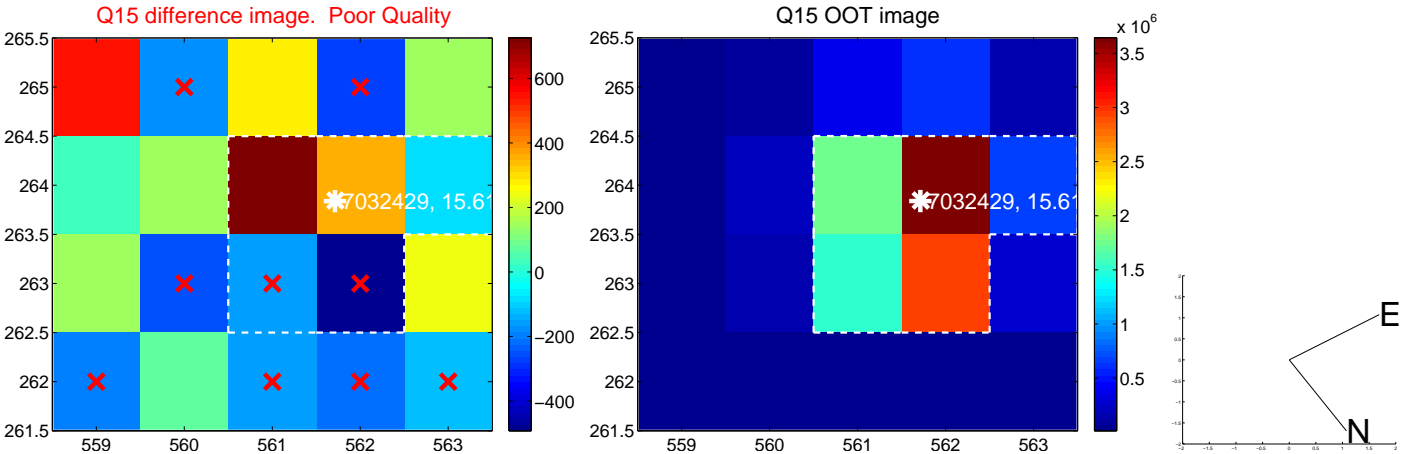
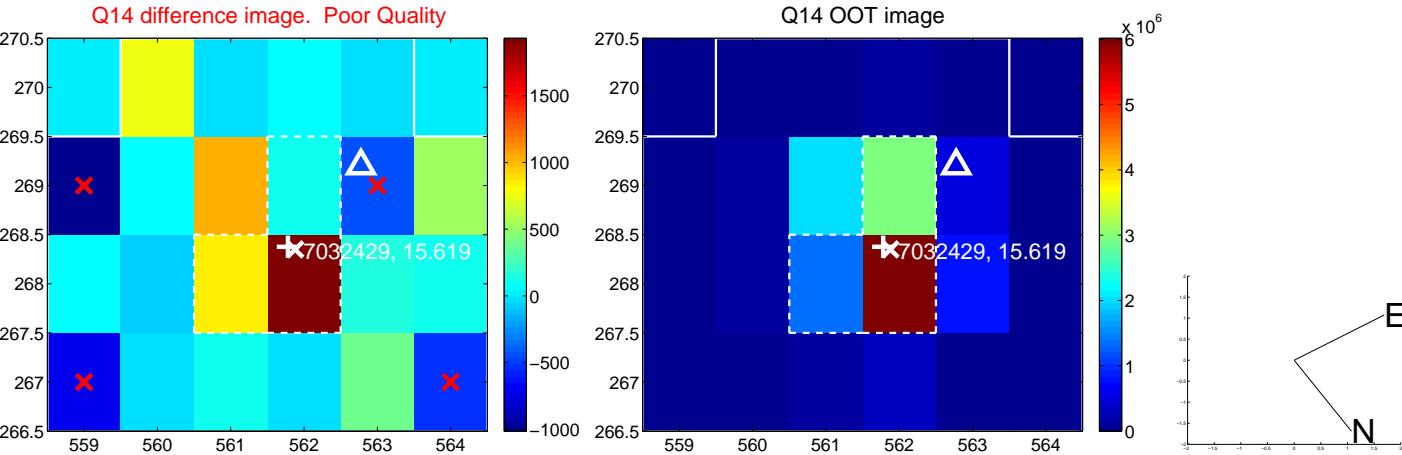
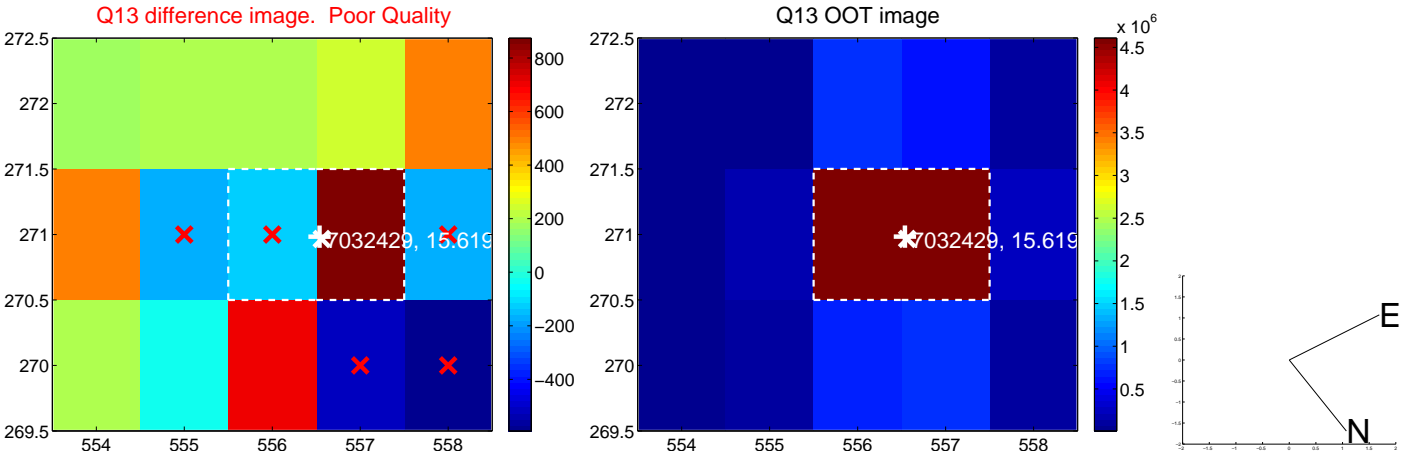
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



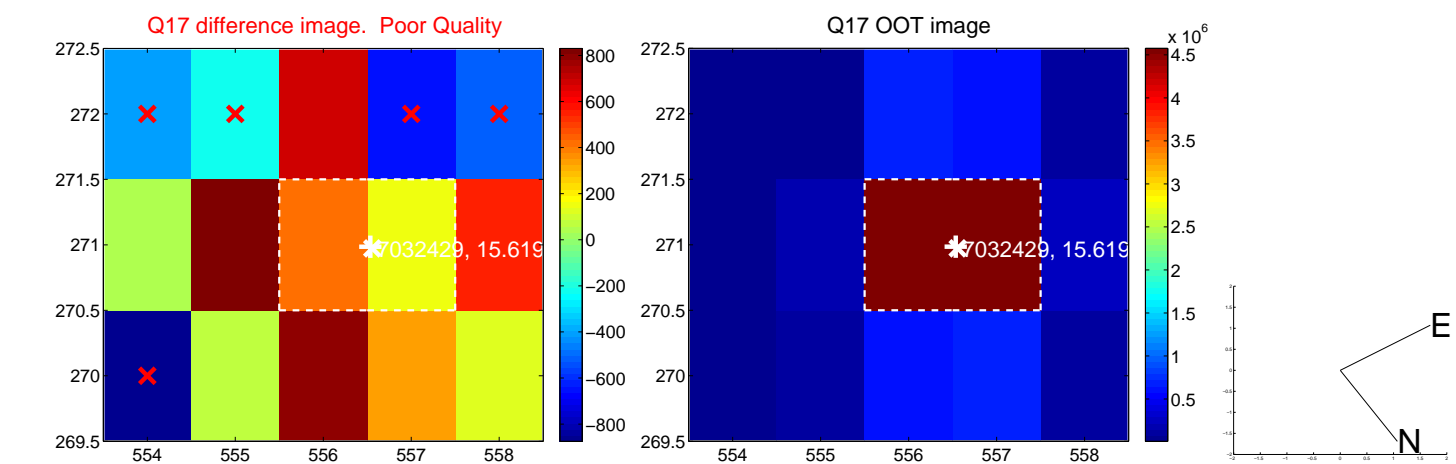
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



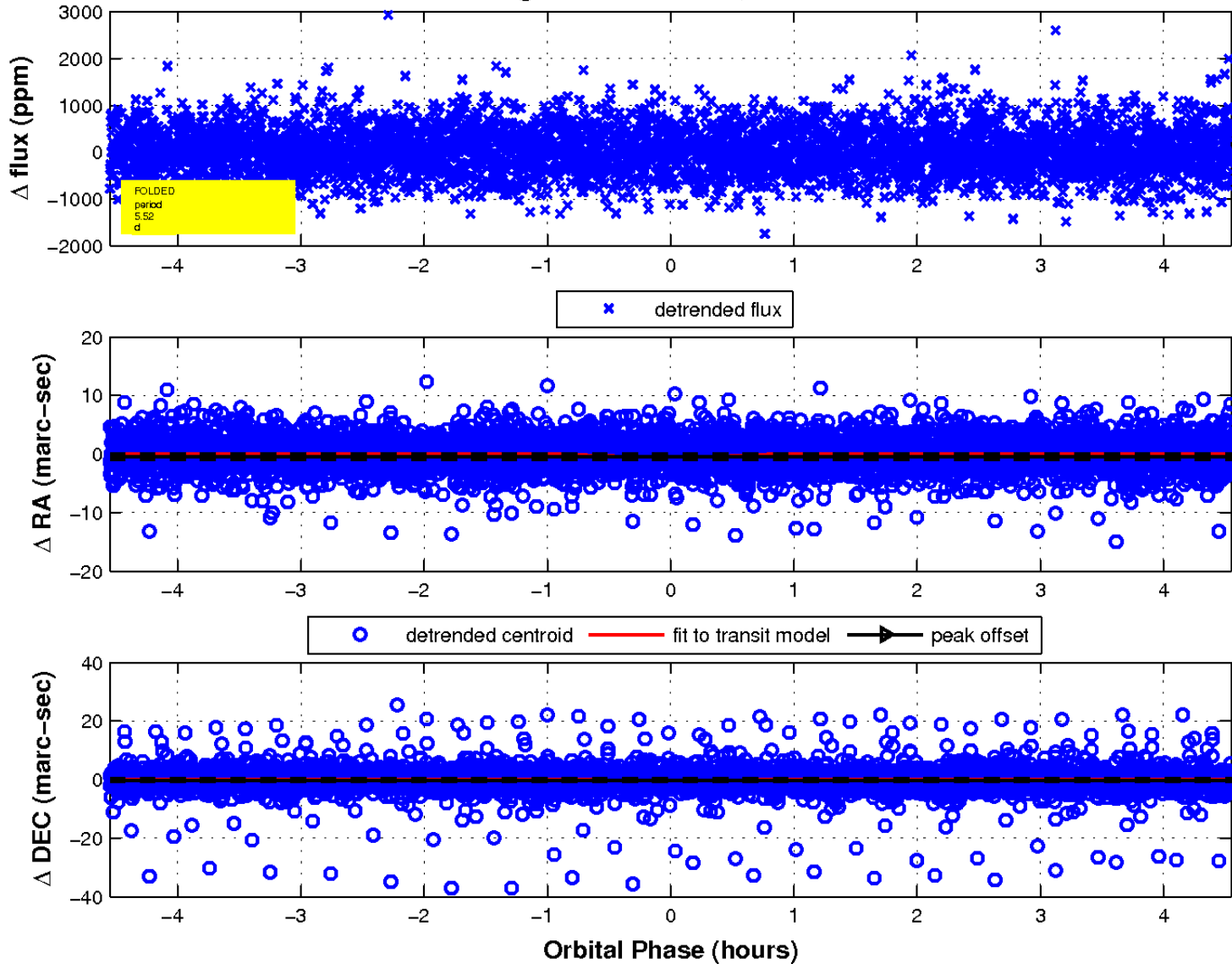
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

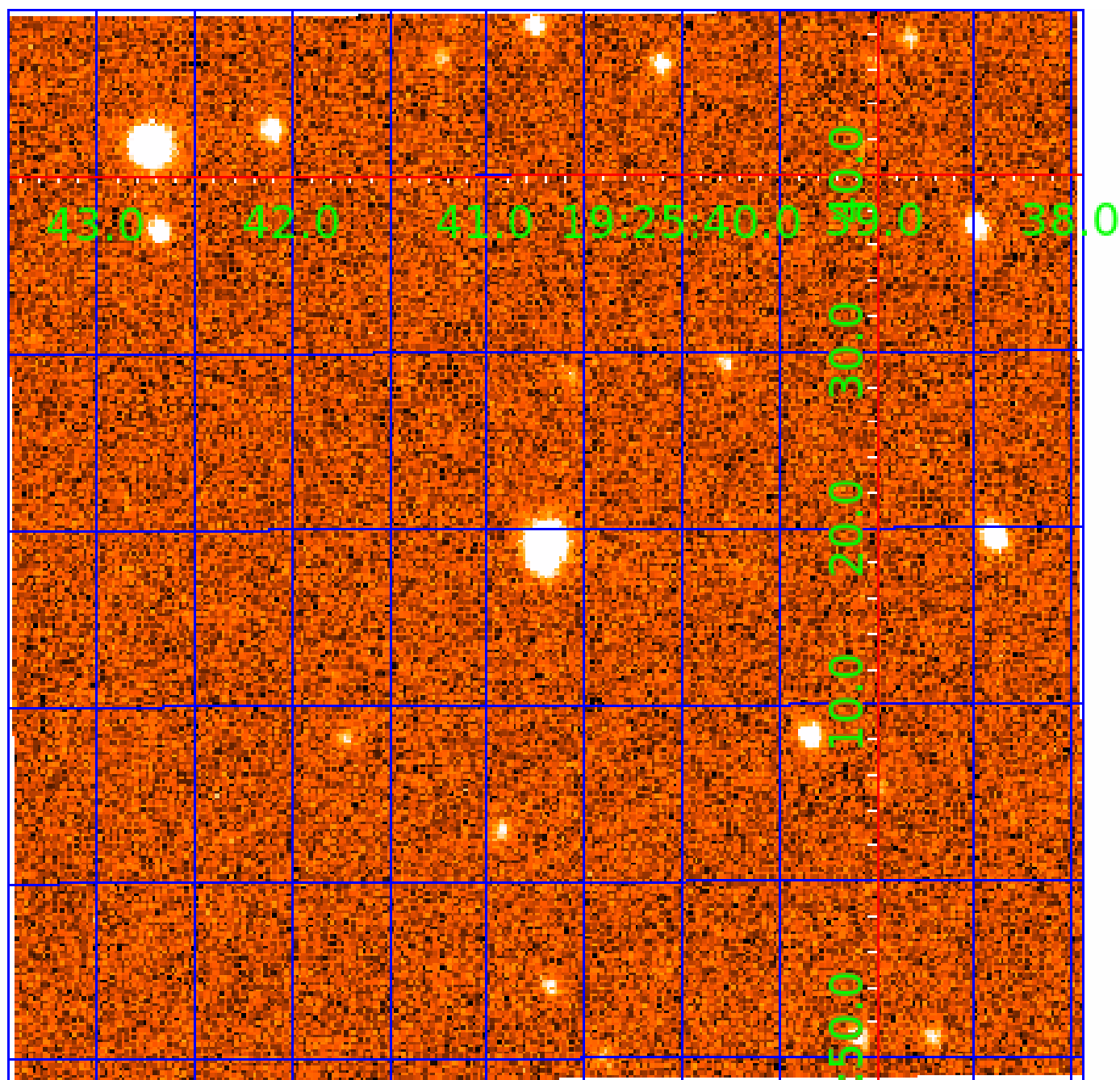


fluxWeightedCentroids, Planet 2 of 5



UKIRT Image

Declination



KIC 007032429

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007032429-01	OBS	No	0.566727	131.901689	12.5	4.296	9.6	3.1	0.89	5598	0.31	4221.52
007032429-02	OBS	No	5.523228	135.892614	539.0	1.519	19.1	18.7	0.89	5598	2.04	202.79
007032429-03	OBS	No	5.116145	131.827460	891.7	0.776	14.5	24.8	0.89	5598	3.23	224.58
007032429-04	OBS	No	5.975691	136.066239	643.8	0.615	15.2	17.1	0.89	5598	2.29	182.58
007032429-05	OBS	No	9.252601	138.423495	3443.9	1.500	15.5	-1.0	0.89	5598	5.17	101.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007032429-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007032429-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
007032429-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

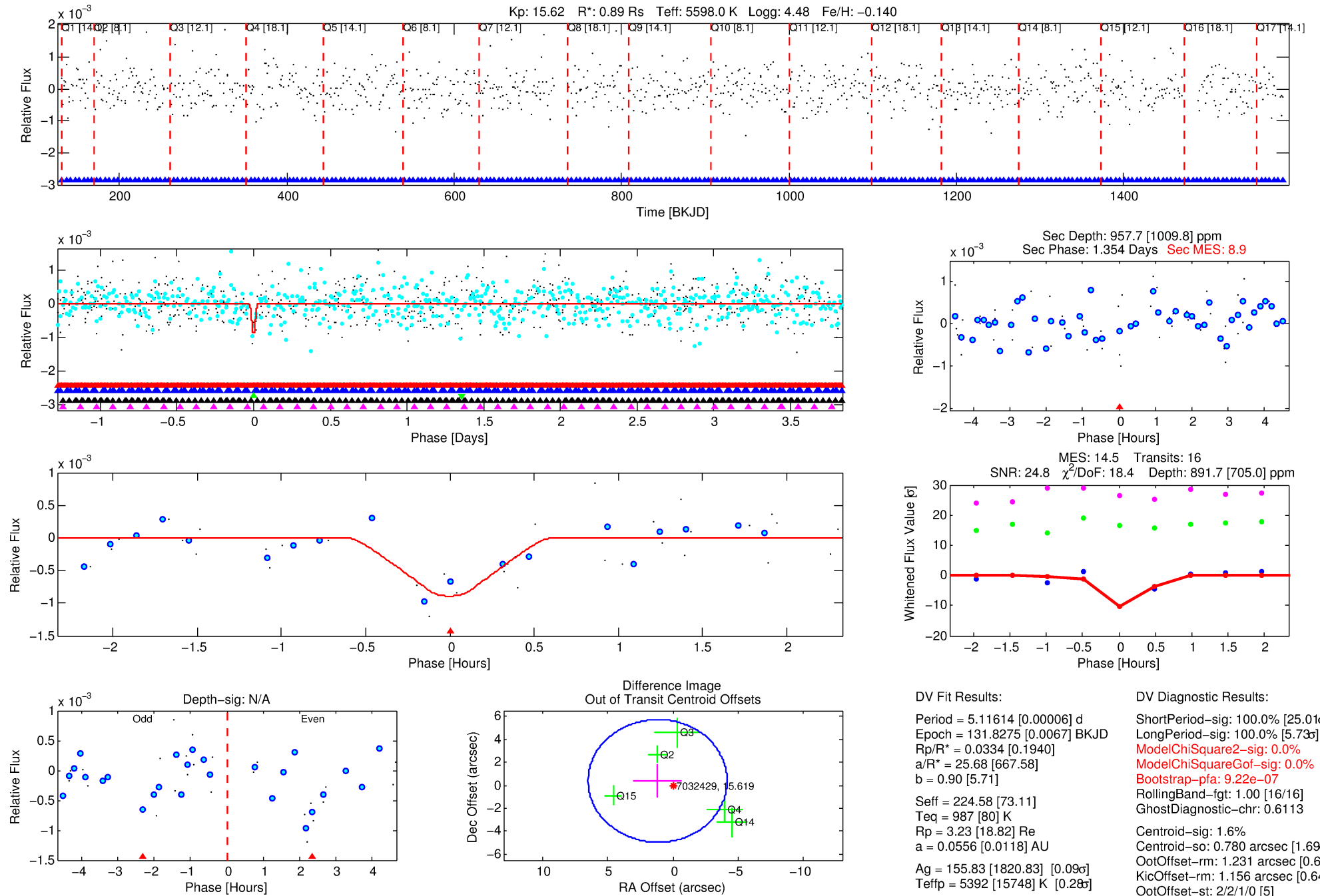
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007032429-03

No Significant Match Found

DV One-Page Summary

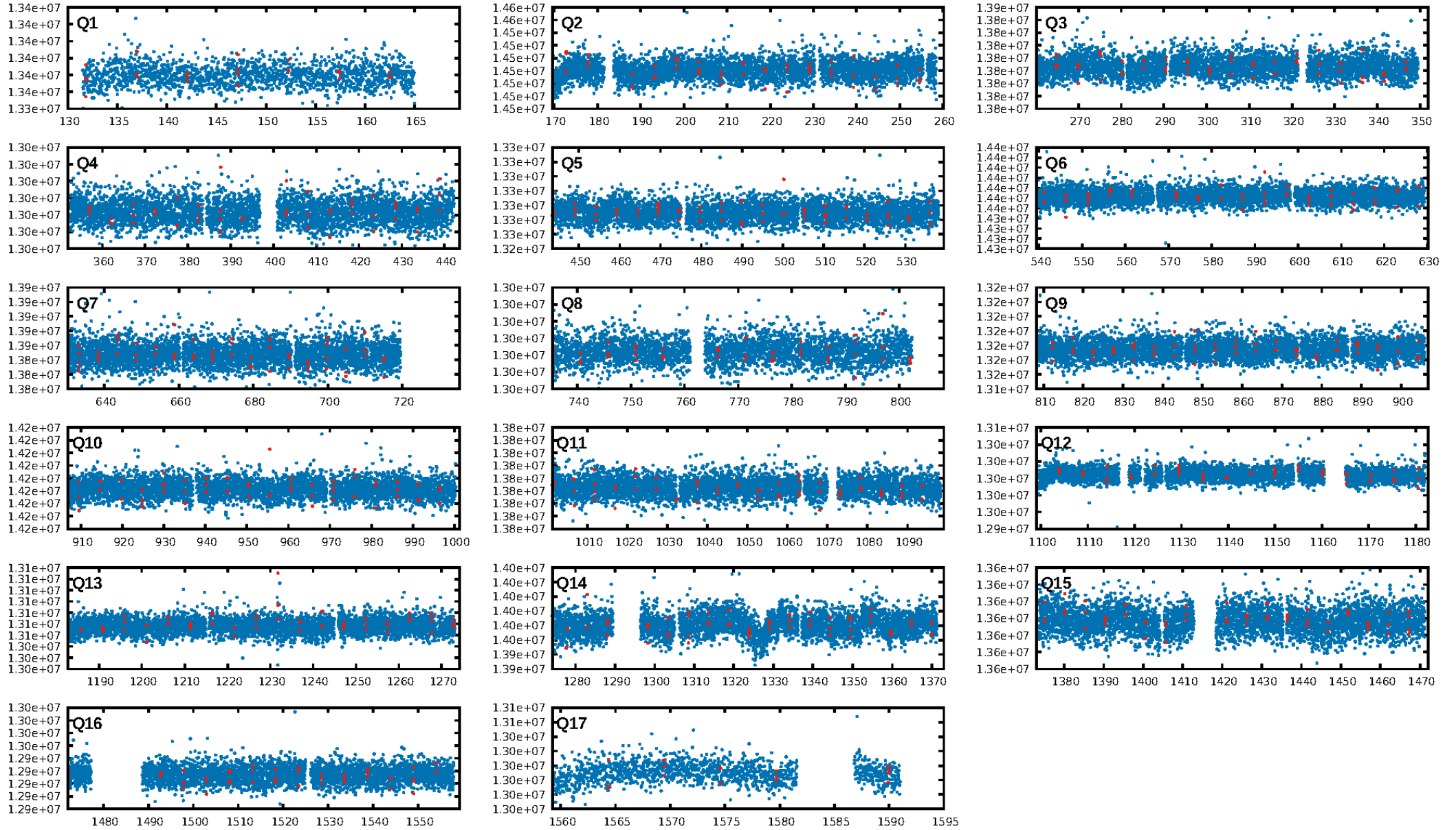
KIC: 7032429 Candidate: 3 of 5 Period: 5.116 d



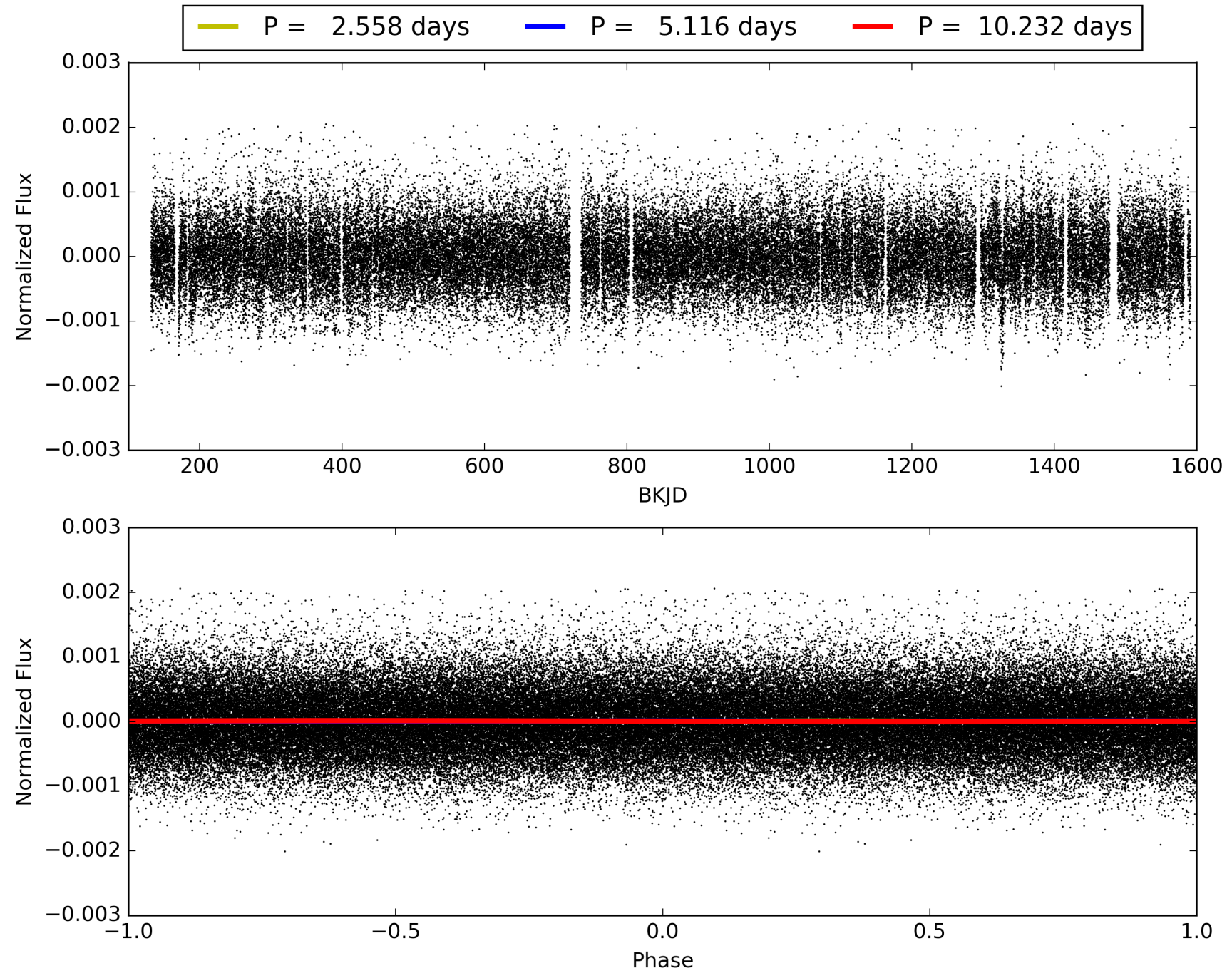
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:10:37 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007032429-03, PDC Light Curves

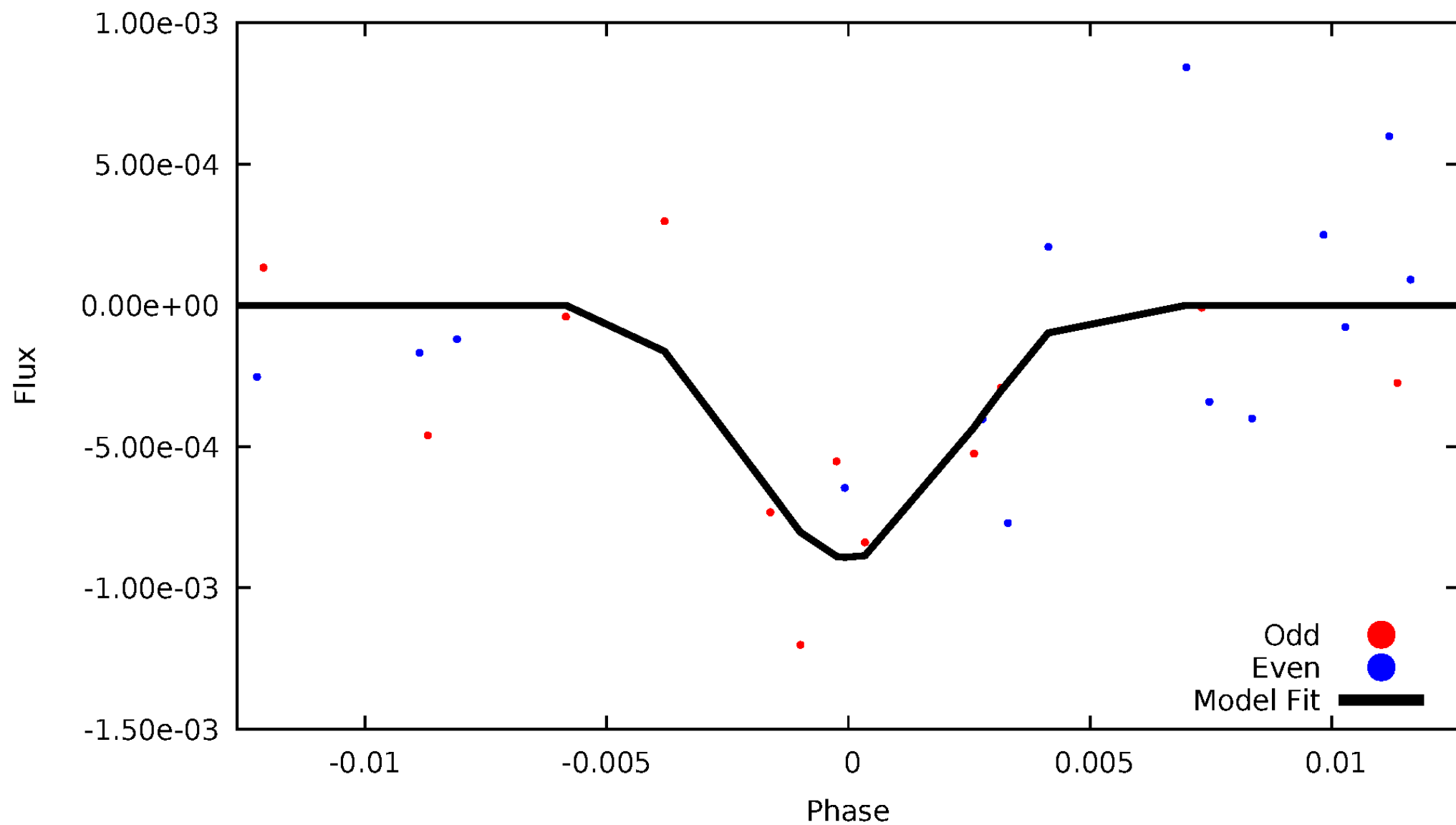


TCE 007032429-03



DV Odd/Even

TCE 007032429-03

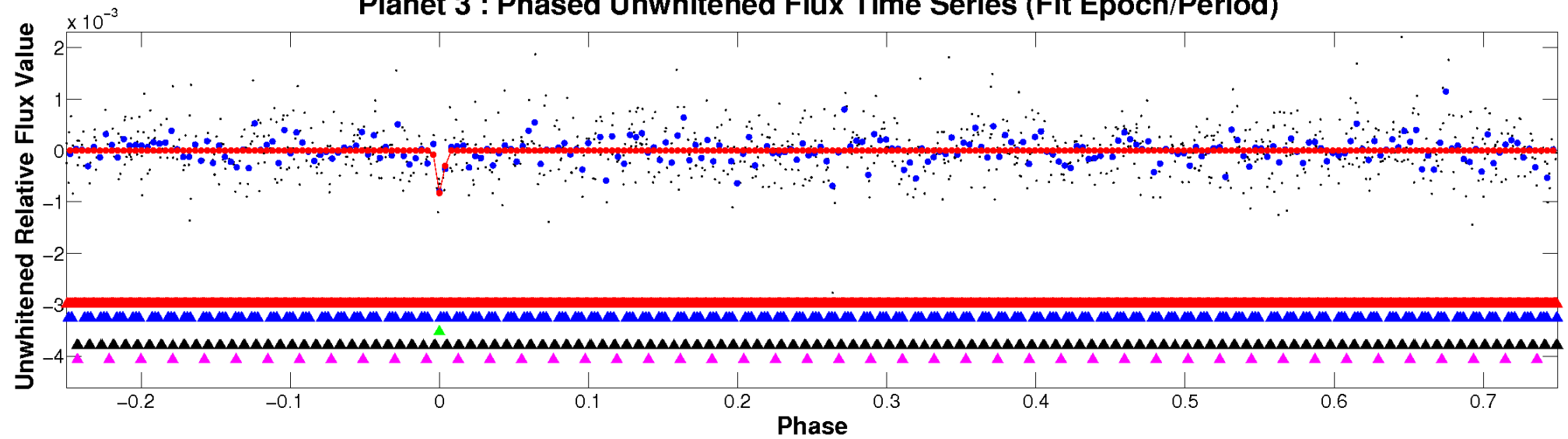


ALT Odd/Even

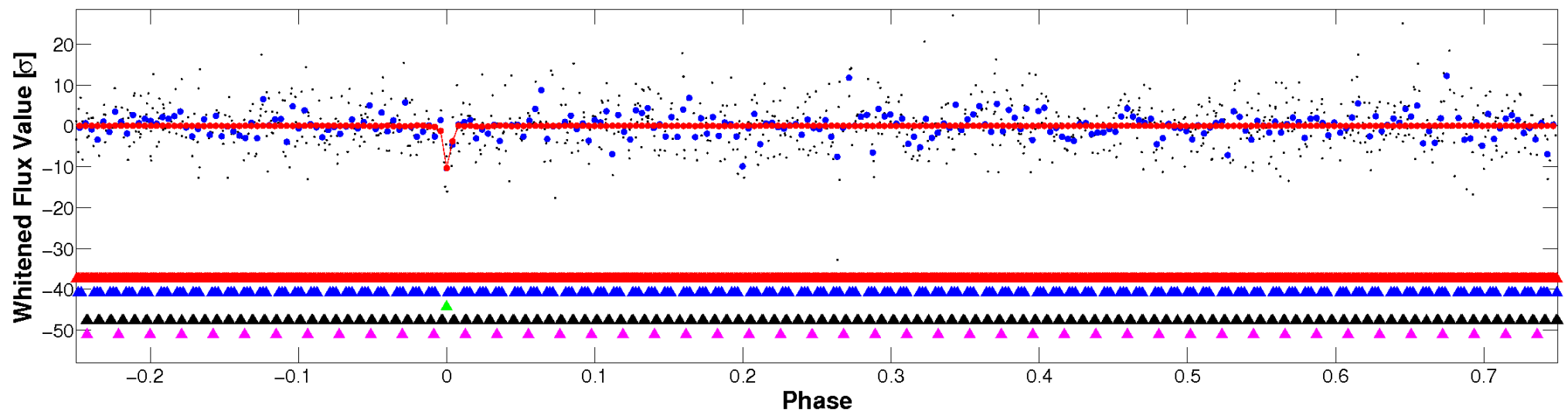
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

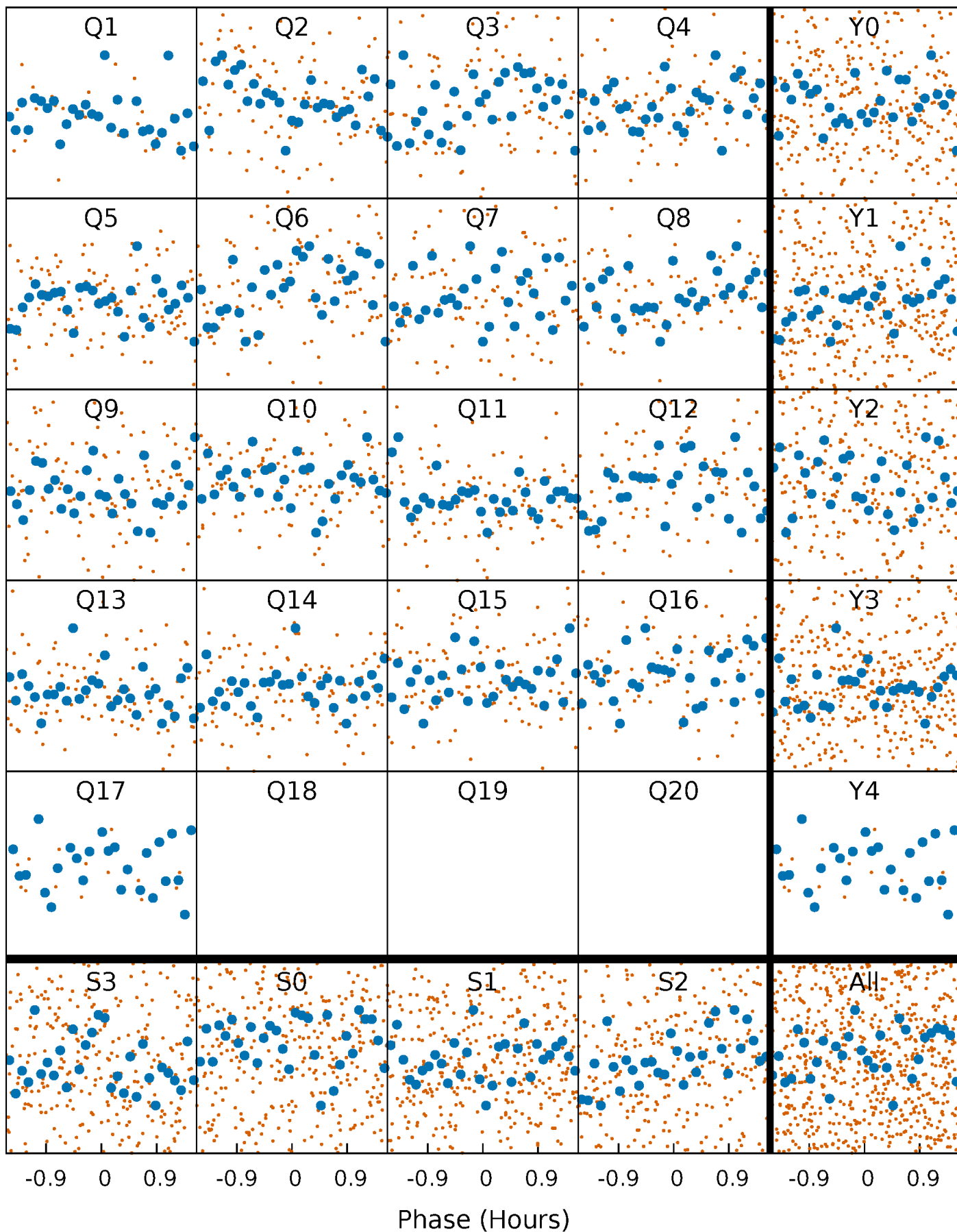


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



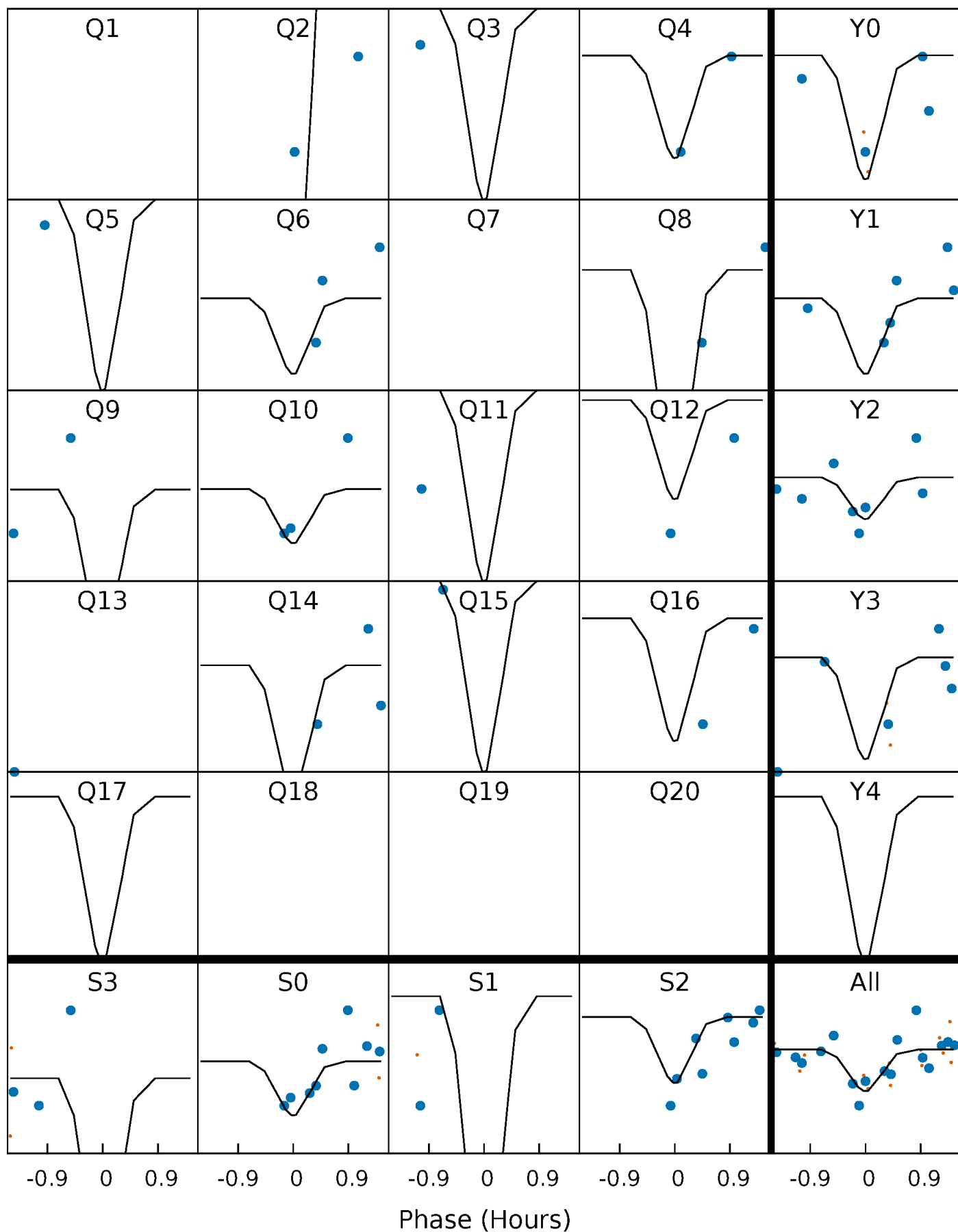
PDC Quarter-Phased Transit Curves

TCE 007032429-03 P= 5.116145 Days $T_0=131.827460$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007032429-03 P= 5.116145 Days $T_0=131.827460$ (BKJD)

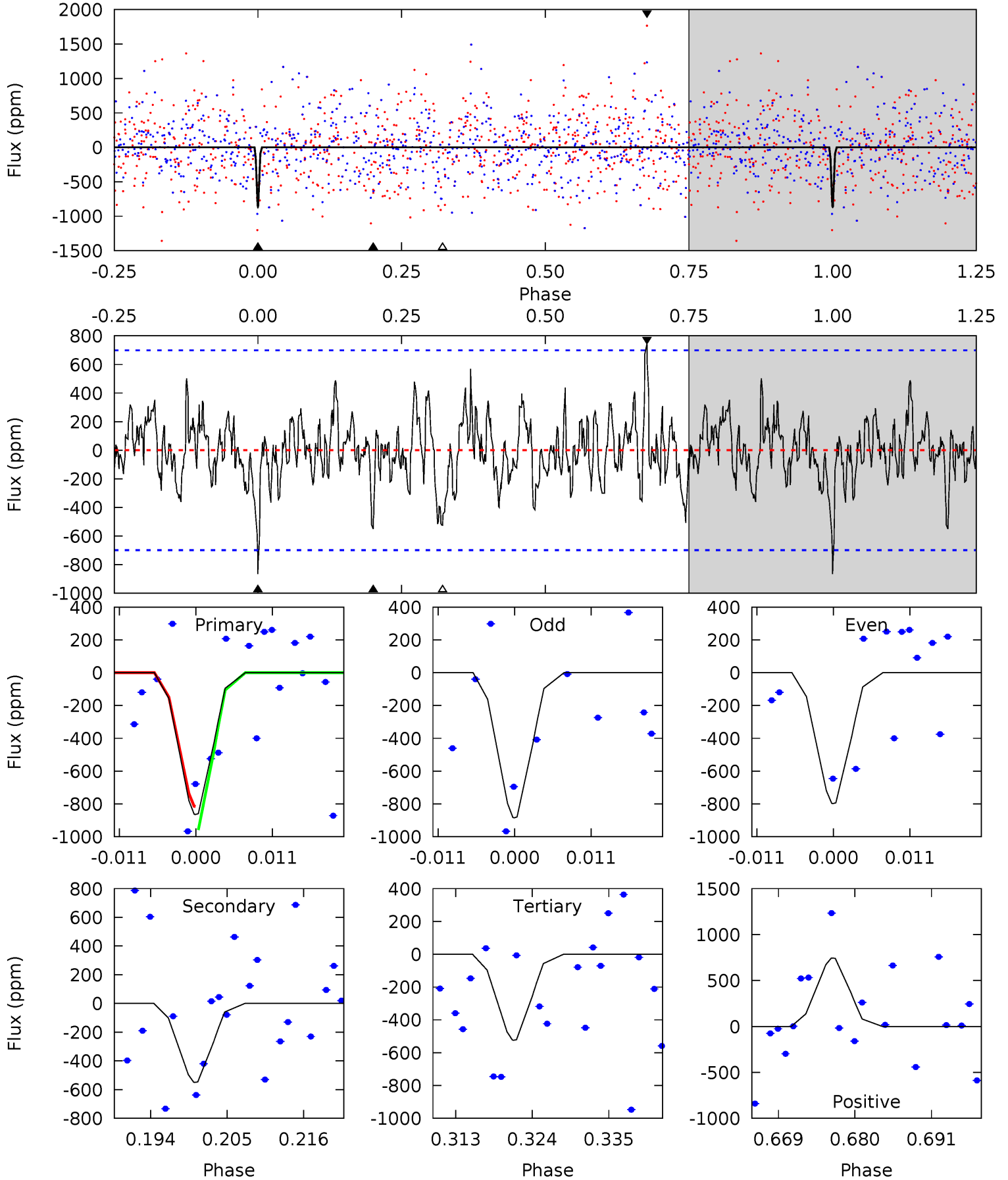


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007032429-03, P = 5.116145 Days, E = 126.711315 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.20	3.94	3.76	5.34	5.01	2.55	1.40	2.44	0.86	0.18	-1.40	0.31	0	0.46	0.50



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007032429

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5598^{+169}_{-152}	$4.483^{+0.075}_{-0.162}$	$-0.140^{+0.300}_{-0.300}$	$0.888^{+0.229}_{-0.115}$	$0.874^{+0.104}_{-0.085}$	$1.761^{+0.640}_{-0.766}$
	+3%/-3%	+2%/-4%	+214%/-214%	+26%/-13%	+12%/-10%	+36%/-44%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007032429-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-550 ± 139	$14.62^{+15.32}_{-9.86}$	1396^{+85}_{-69}	2894^{+1234}_{-575}	$4.253^{+36.270}_{-3.331}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

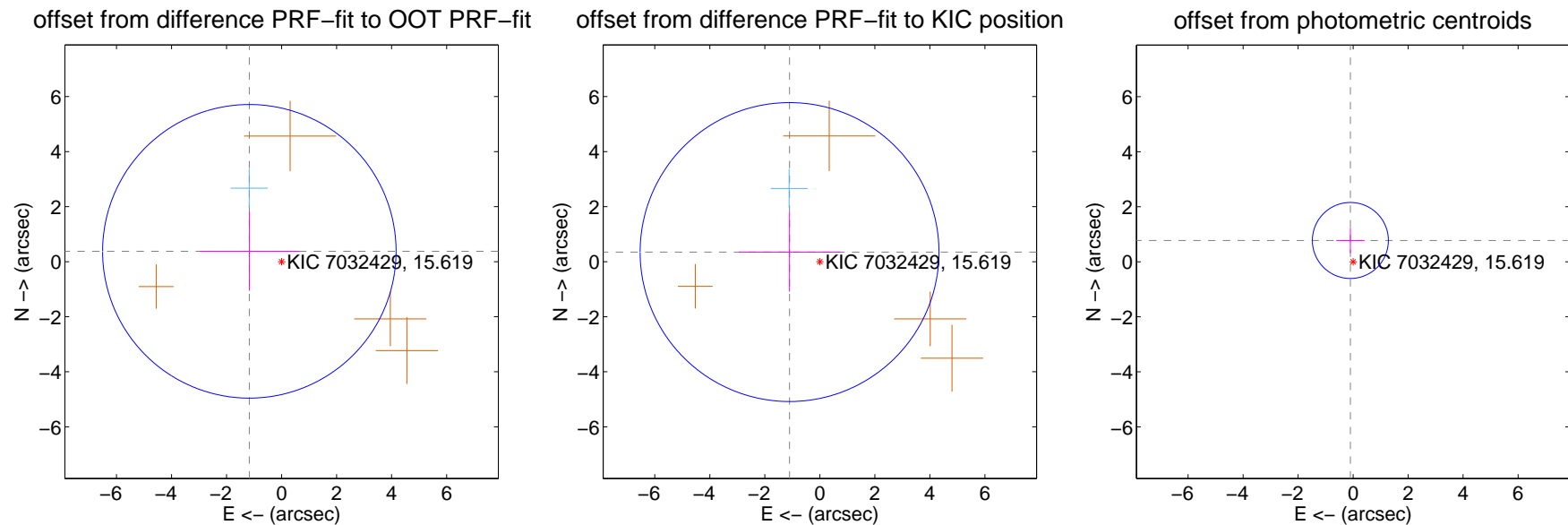
DV Centroid Data

Supplemental centroid analysis for 007032429-03. Kepler magnitude: 15.62. Transit SNR 24.84

There are 1 quarters with good PRF difference image offsets

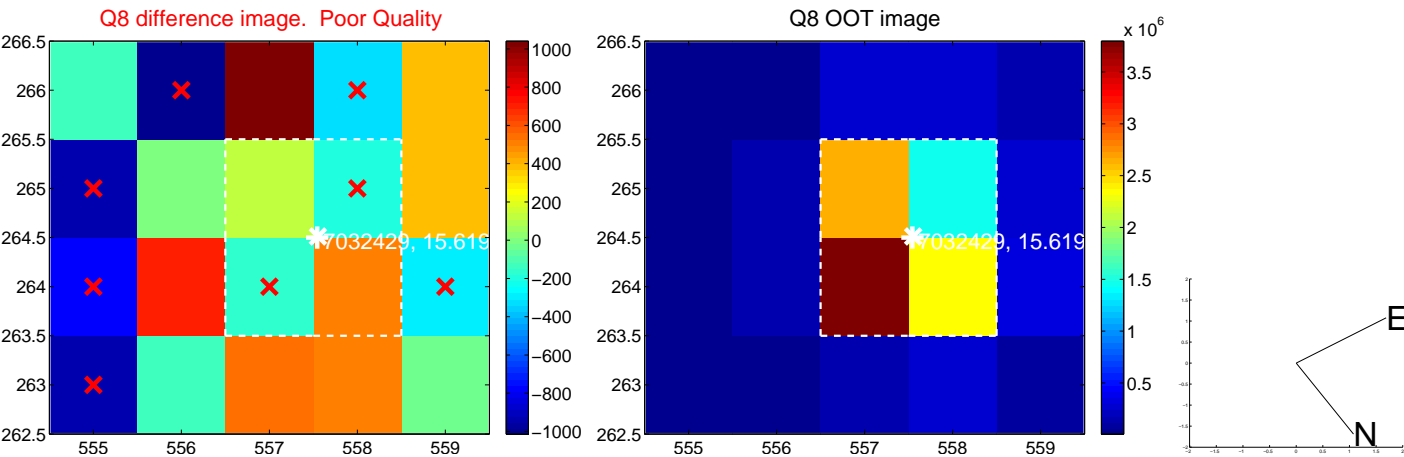
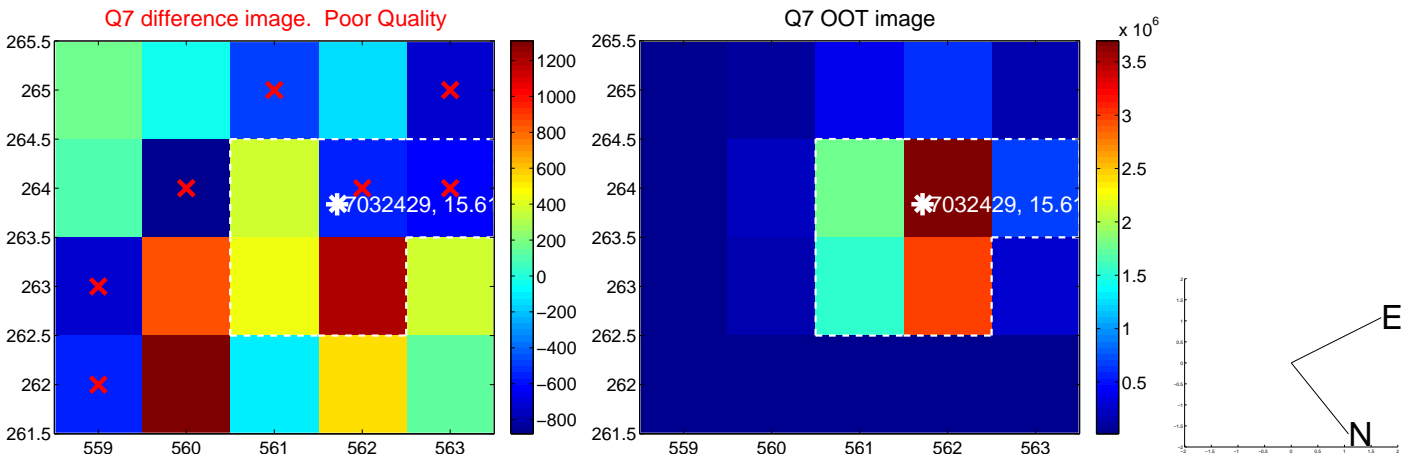
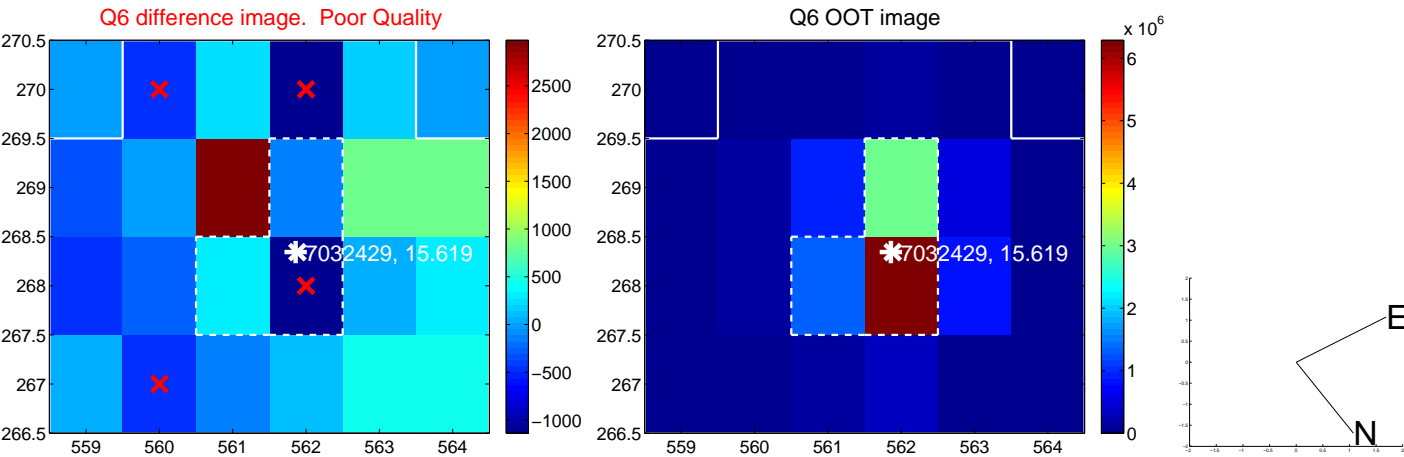
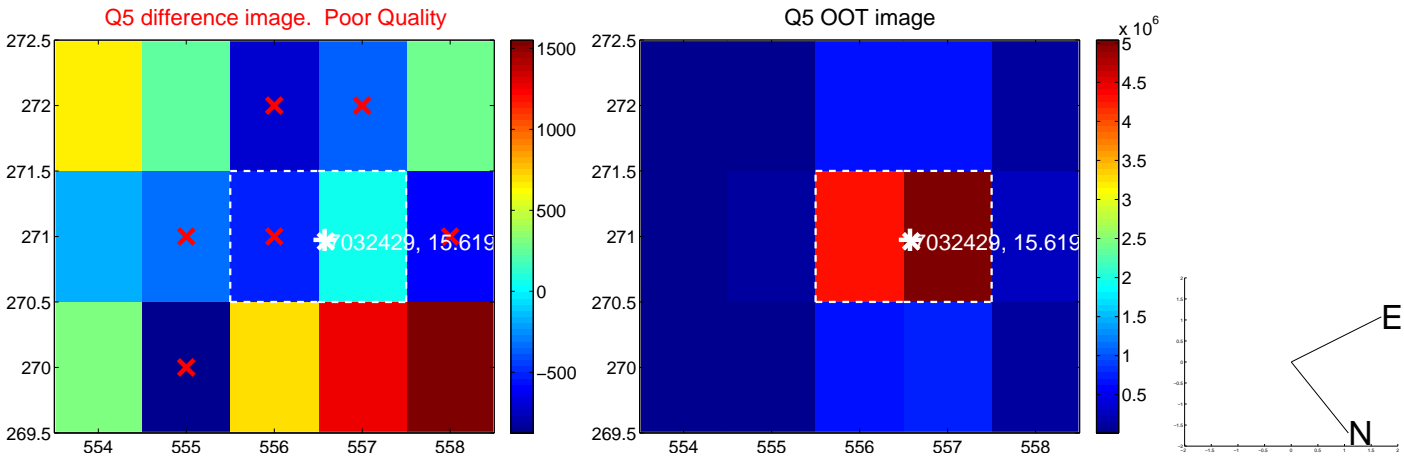
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.231 ± 1.778	0.69	1.172 ± 1.810	0.377 ± 1.432
PRF-fit source offset from KIC position	1.156 ± 1.810	0.64	1.101 ± 1.844	0.350 ± 1.440
photometric centroid source offset	0.78 ± 0.46	1.69	0.10 ± 0.51	0.77 ± 0.46

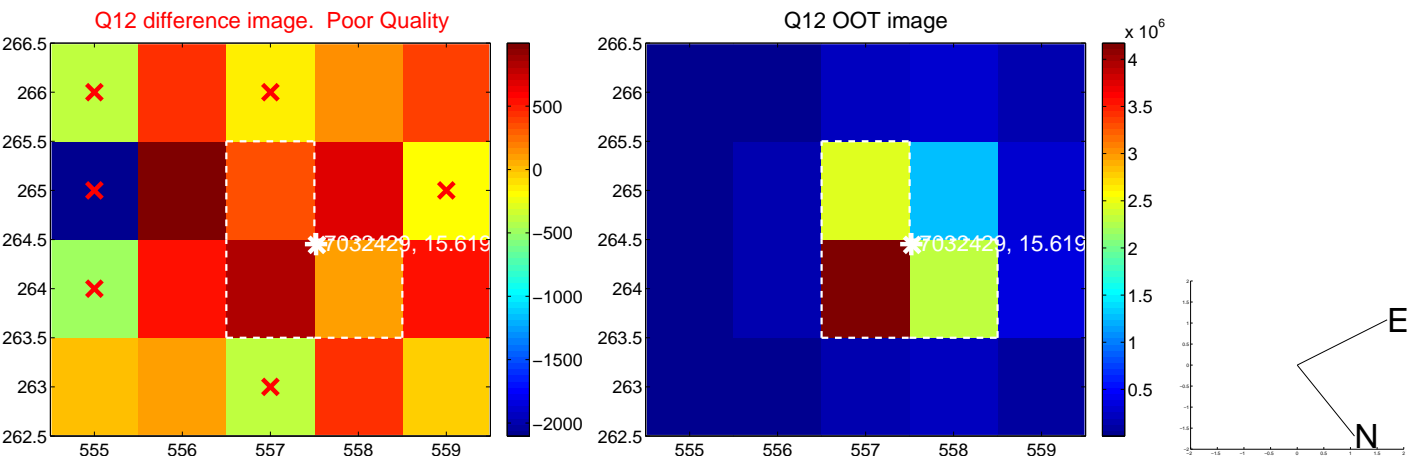
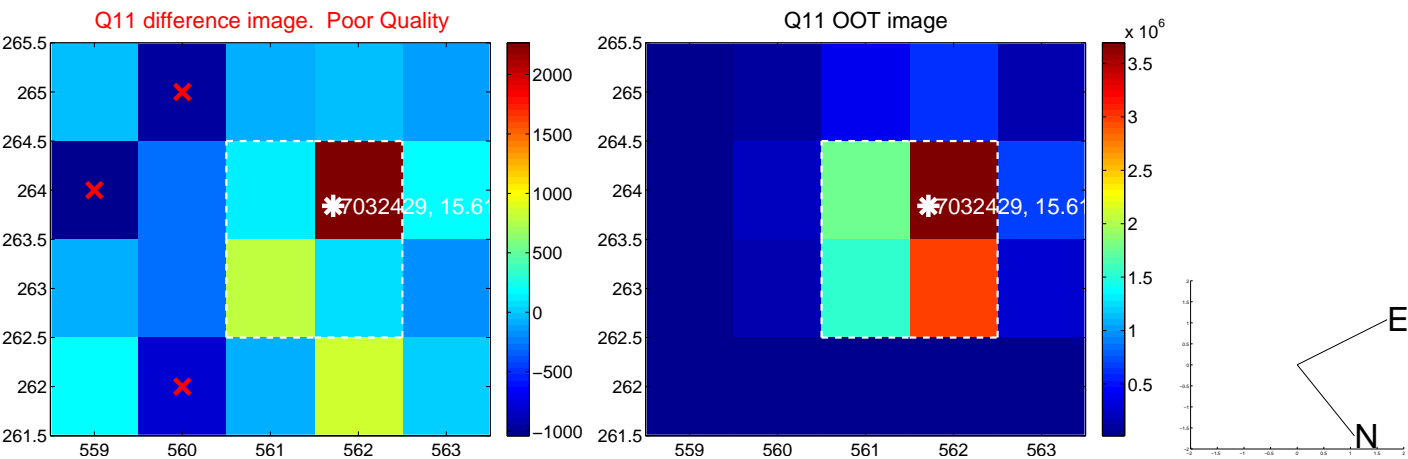
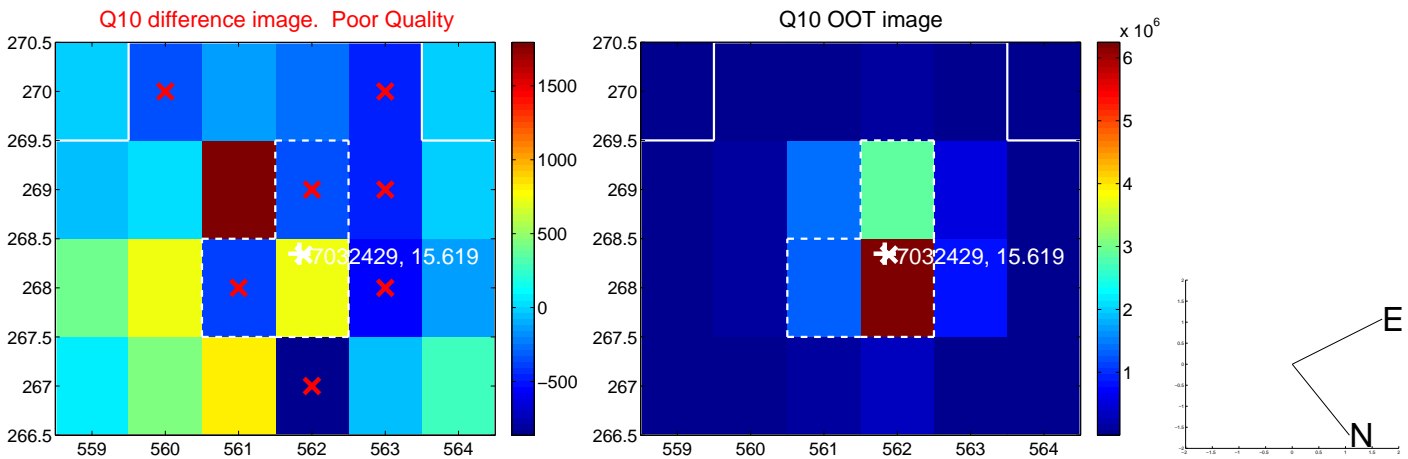
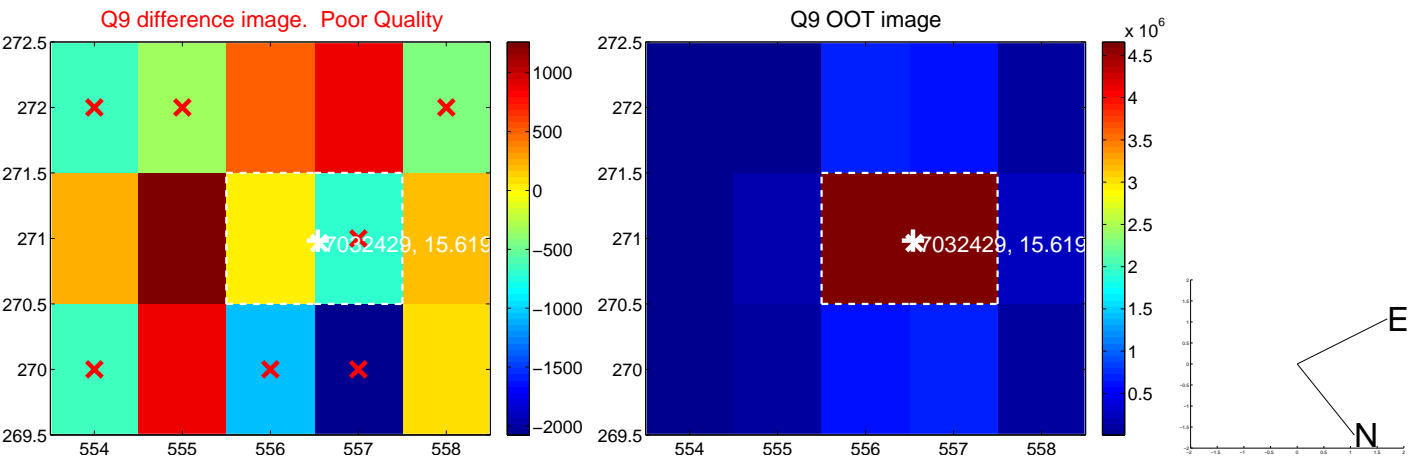


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

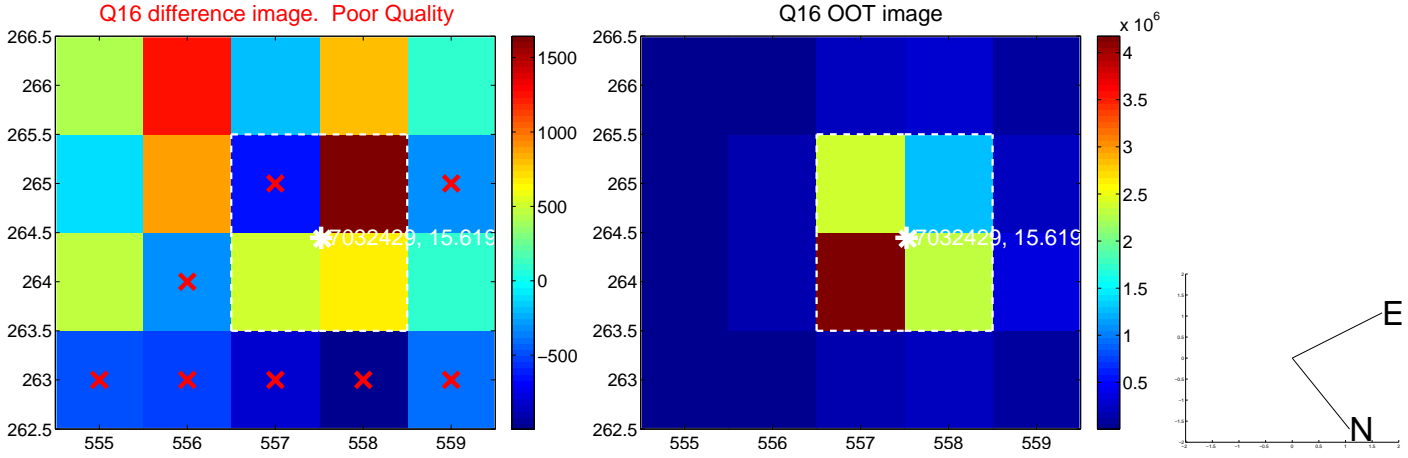
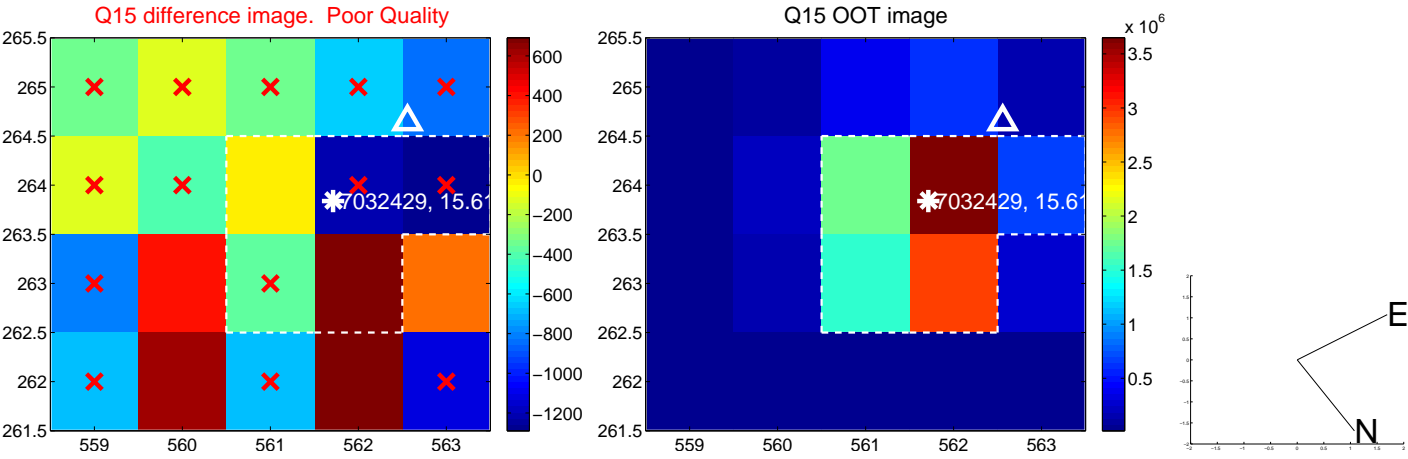
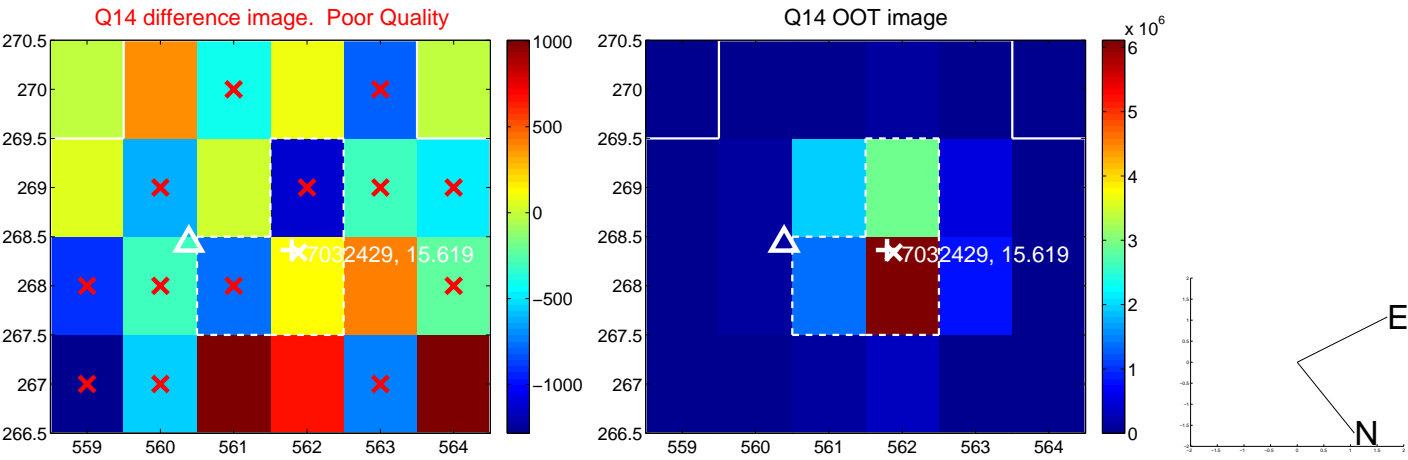
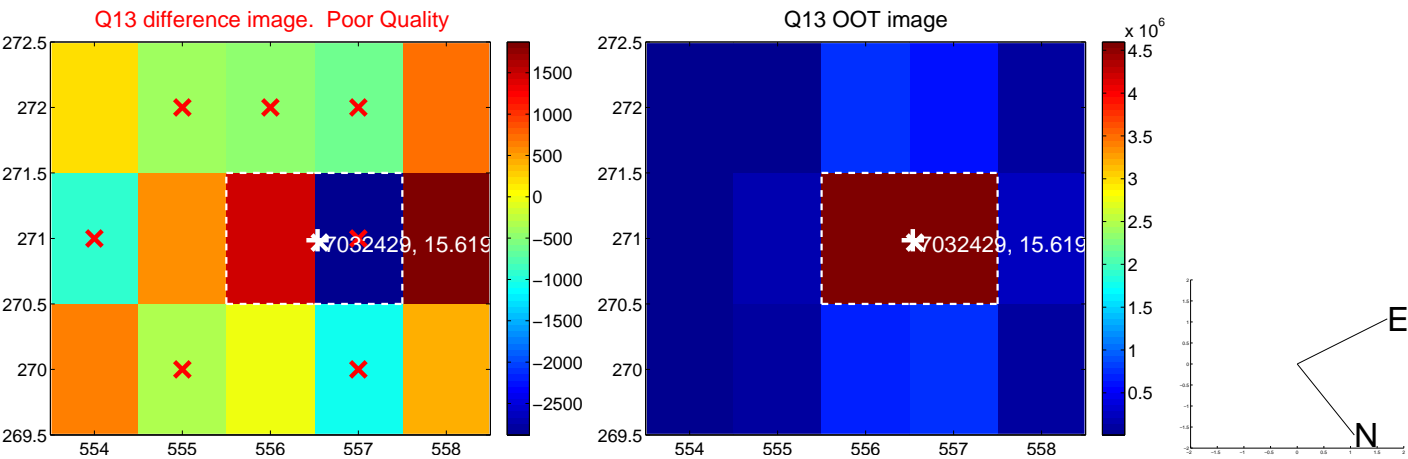
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



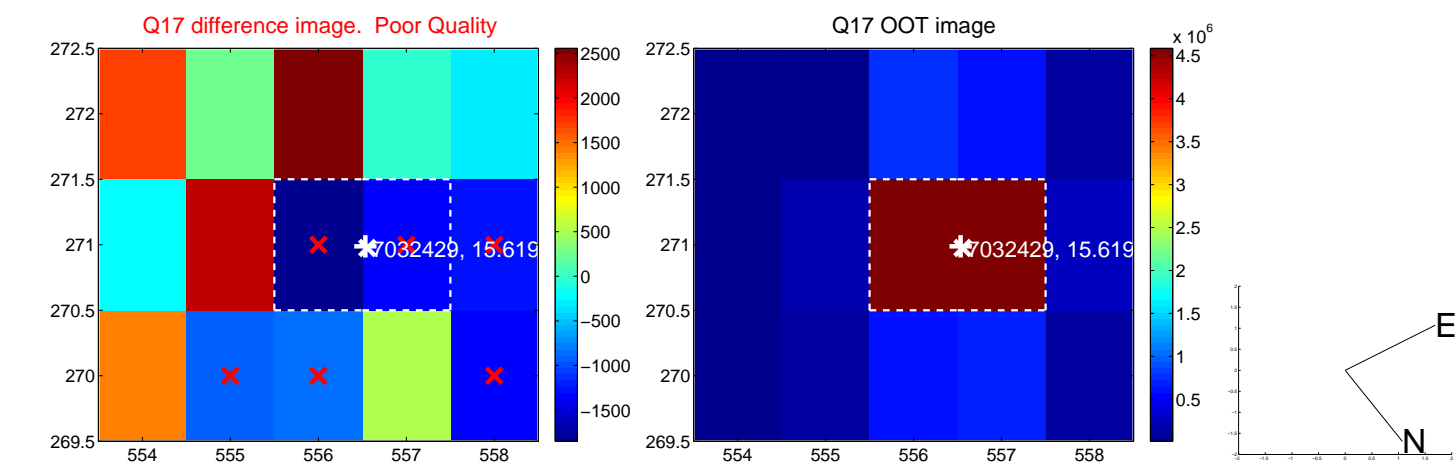
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



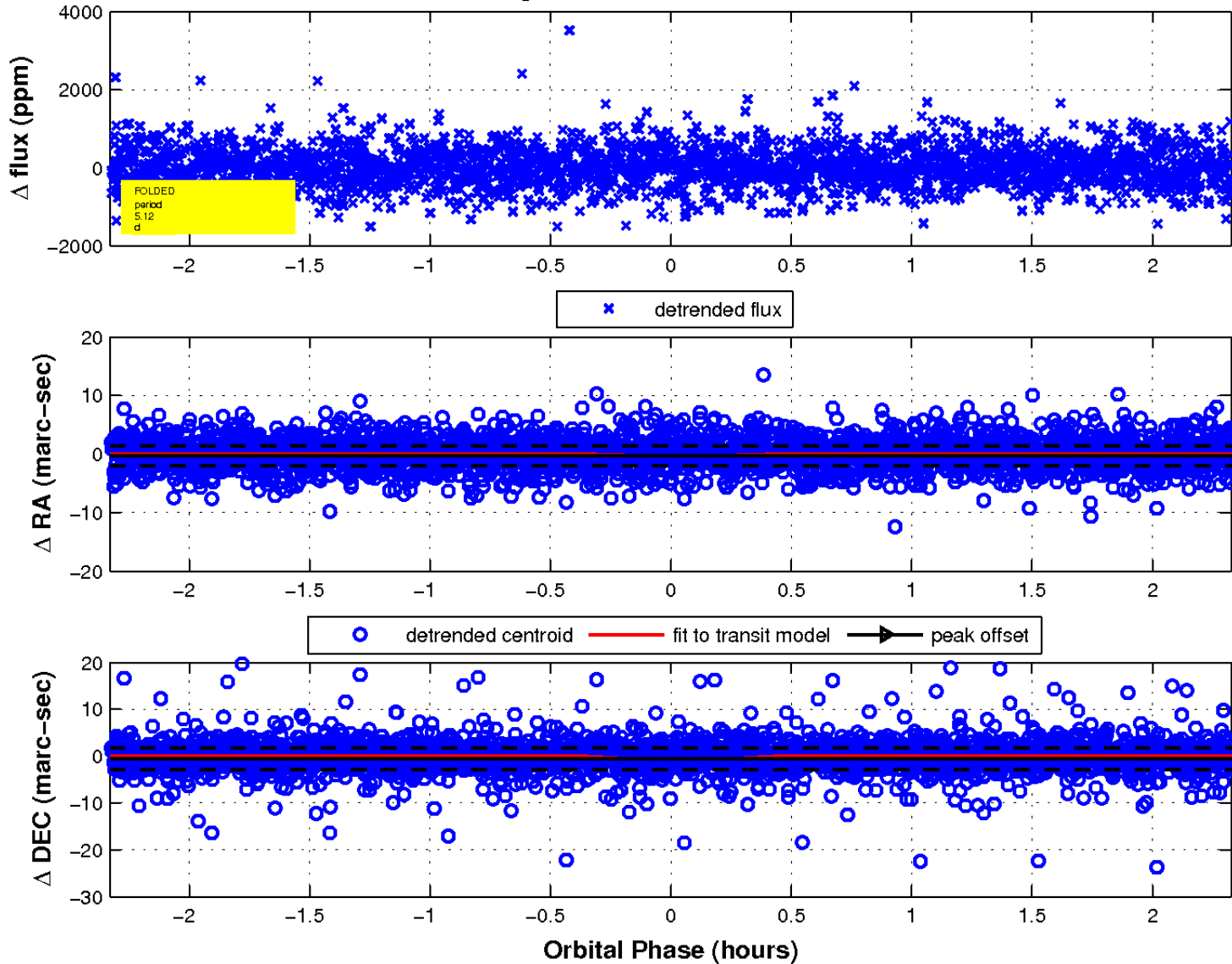
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

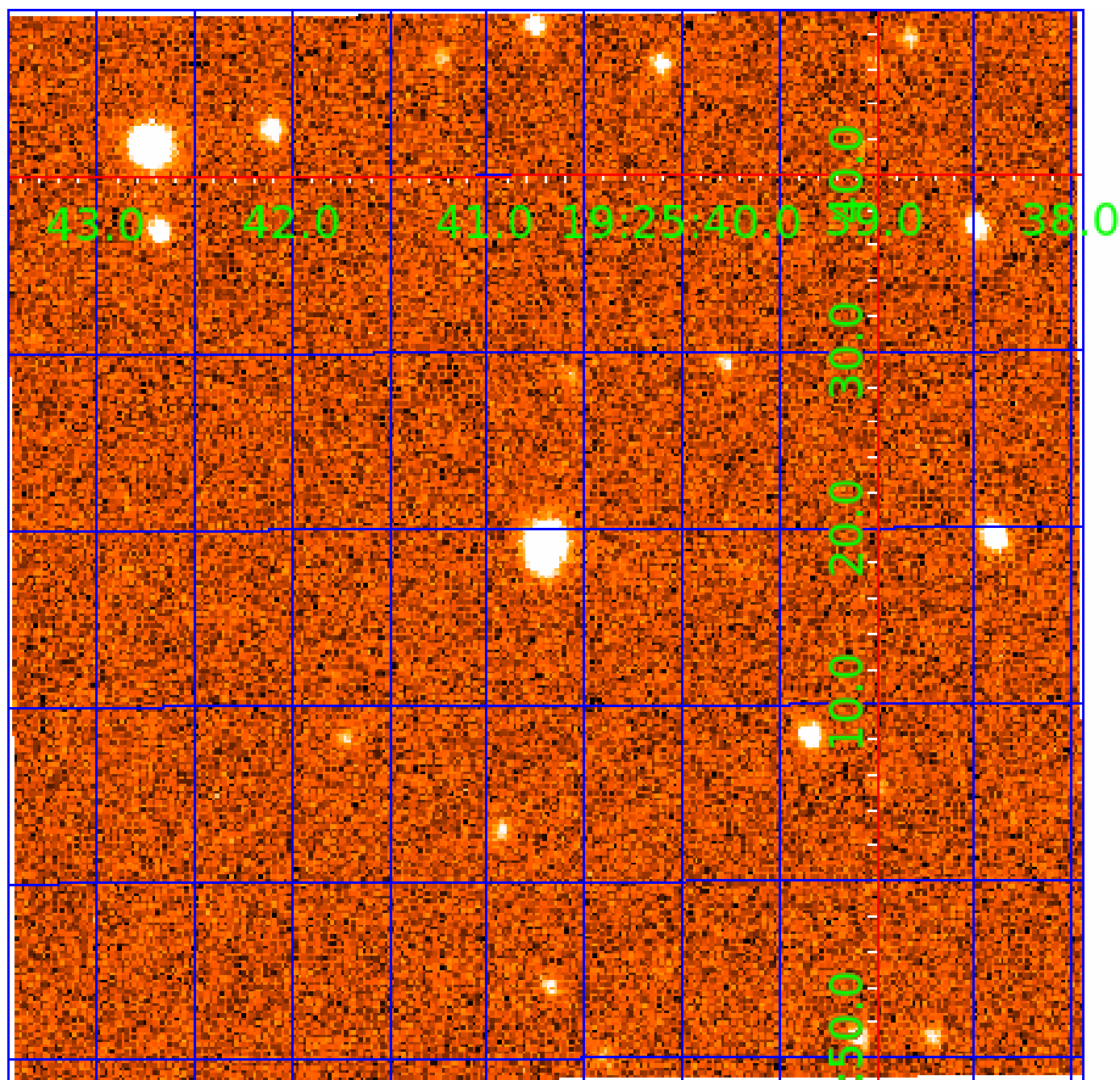


fluxWeightedCentroids, Planet 3 of 5



UKIRT Image

Declination



KIC 007032429

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007032429-01	OBS	No	0.566727	131.901689	12.5	4.296	9.6	3.1	0.89	5598	0.31	4221.52
007032429-02	OBS	No	5.523228	135.892614	539.0	1.519	19.1	18.7	0.89	5598	2.04	202.79
007032429-03	OBS	No	5.116145	131.827460	891.7	0.776	14.5	24.8	0.89	5598	3.23	224.58
007032429-04	OBS	No	5.975691	136.066239	643.8	0.615	15.2	17.1	0.89	5598	2.29	182.58
007032429-05	OBS	No	9.252601	138.423495	3443.9	1.500	15.5	-1.0	0.89	5598	5.17	101.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007032429-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007032429-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
007032429-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

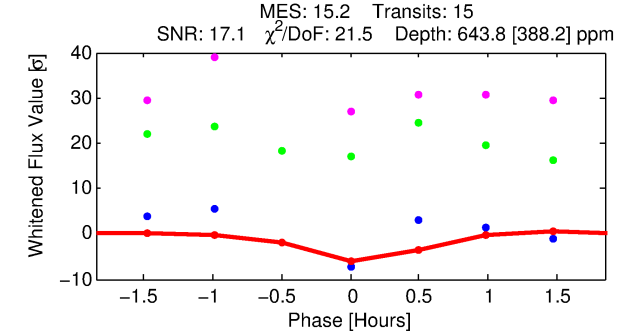
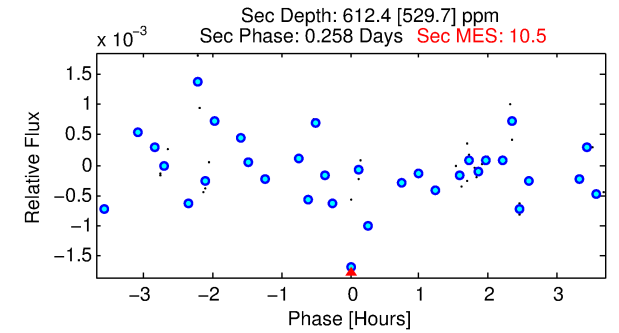
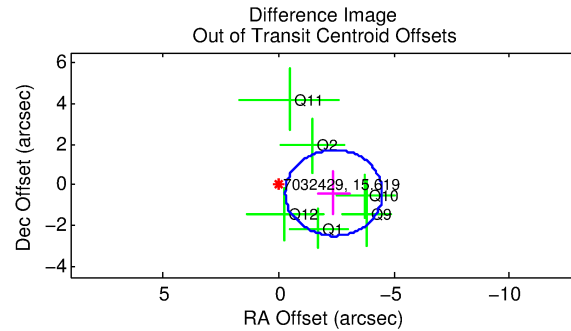
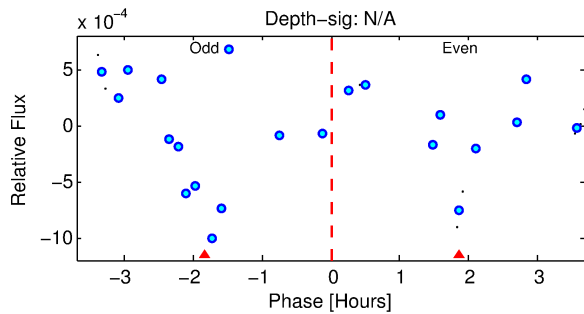
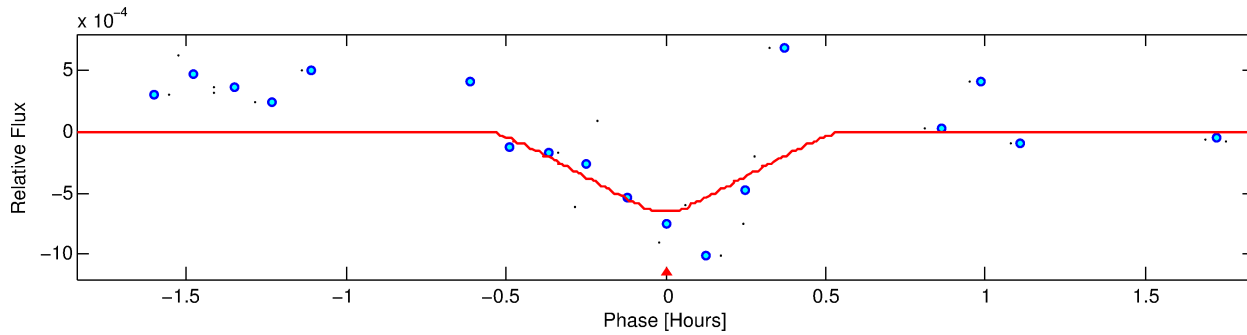
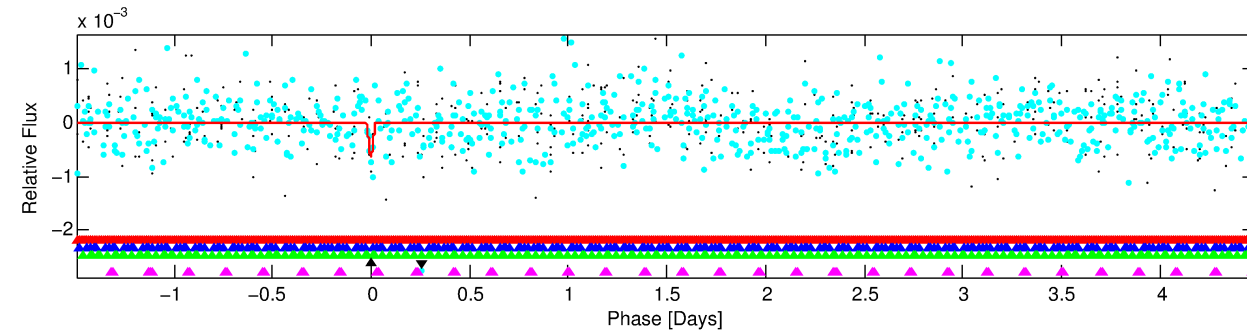
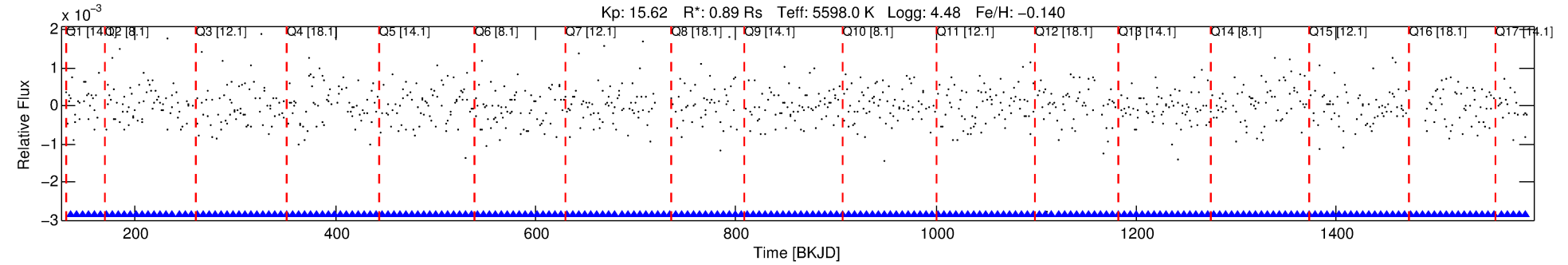
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007032429-04

No Significant Match Found

DV One-Page Summary

KIC: 7032429 Candidate: 4 of 5 Period: 5.976 d



DV Fit Results:

Period = 5.97569 [0.00008] d
Epoch = 136.0662 [0.0071] BKJD
Rp/R* = 0.0237 [0.2534]
a/R* = 75.95 [3396.00]
b = 0.03 [1367.11]
Seff = 182.58 [59.44]
Teq = 937 [76] K
Rp = 2.29 [24.56] Re
a = 0.0616 [0.0131] AU
Ag = 243.12 [5207.27] [0.05]
Teffp = 5722 [30639] K [0.16]

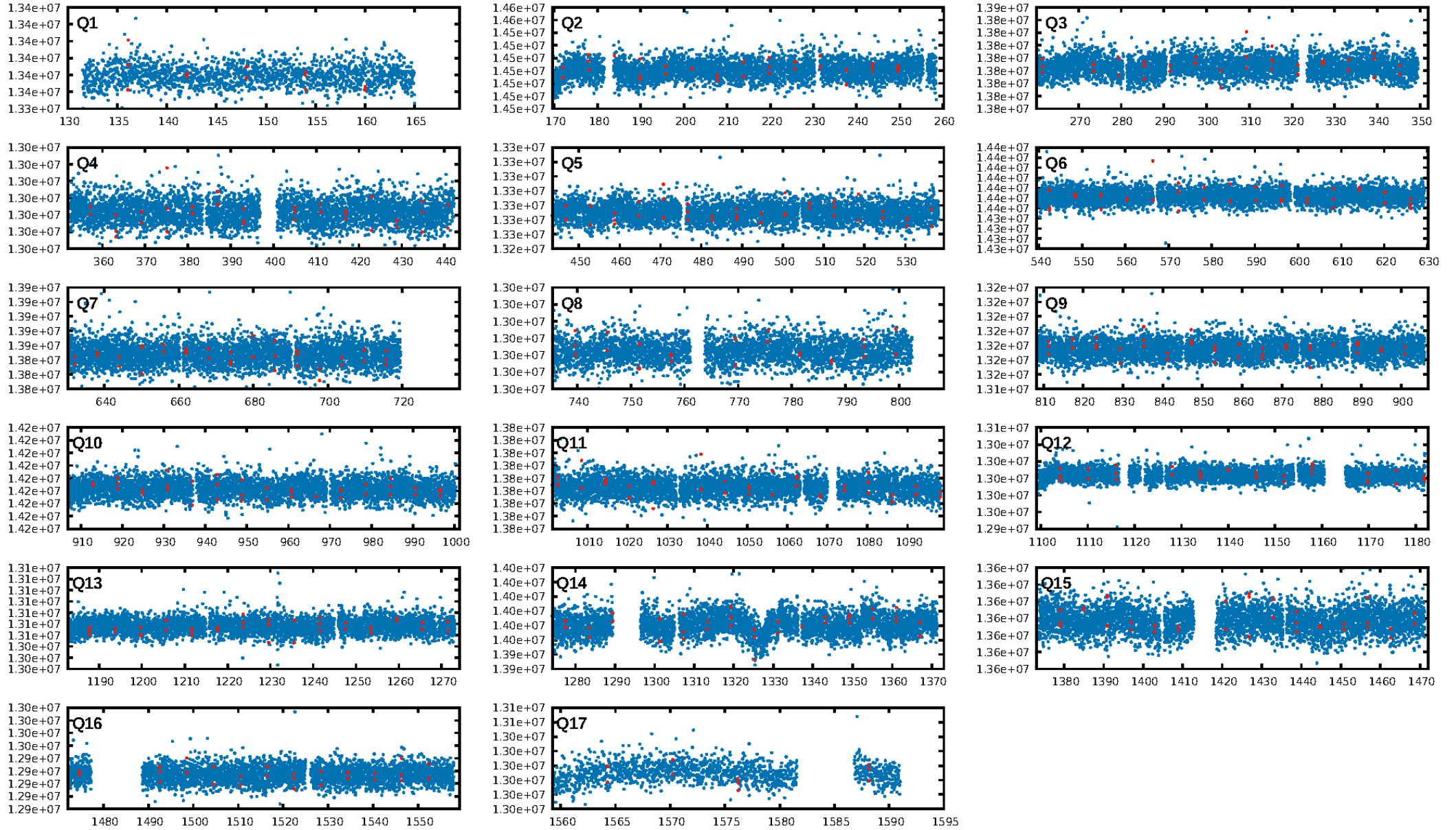
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.63]
LongPeriod-sig: 100.0% [48.51]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 2.60e-07
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: -7.377
Centroid-sig: 0.2%
Centroid-so: 1.512 arcsec [2.02]
OotOffset-rm: 2.431 arcsec [3.47]
KicOffset-rm: 2.499 arcsec [3.50]
OotOffset-st: 2/1/1/2 [6]
KicOffset-st: 2/1/1/2 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 0.00 [0/17]

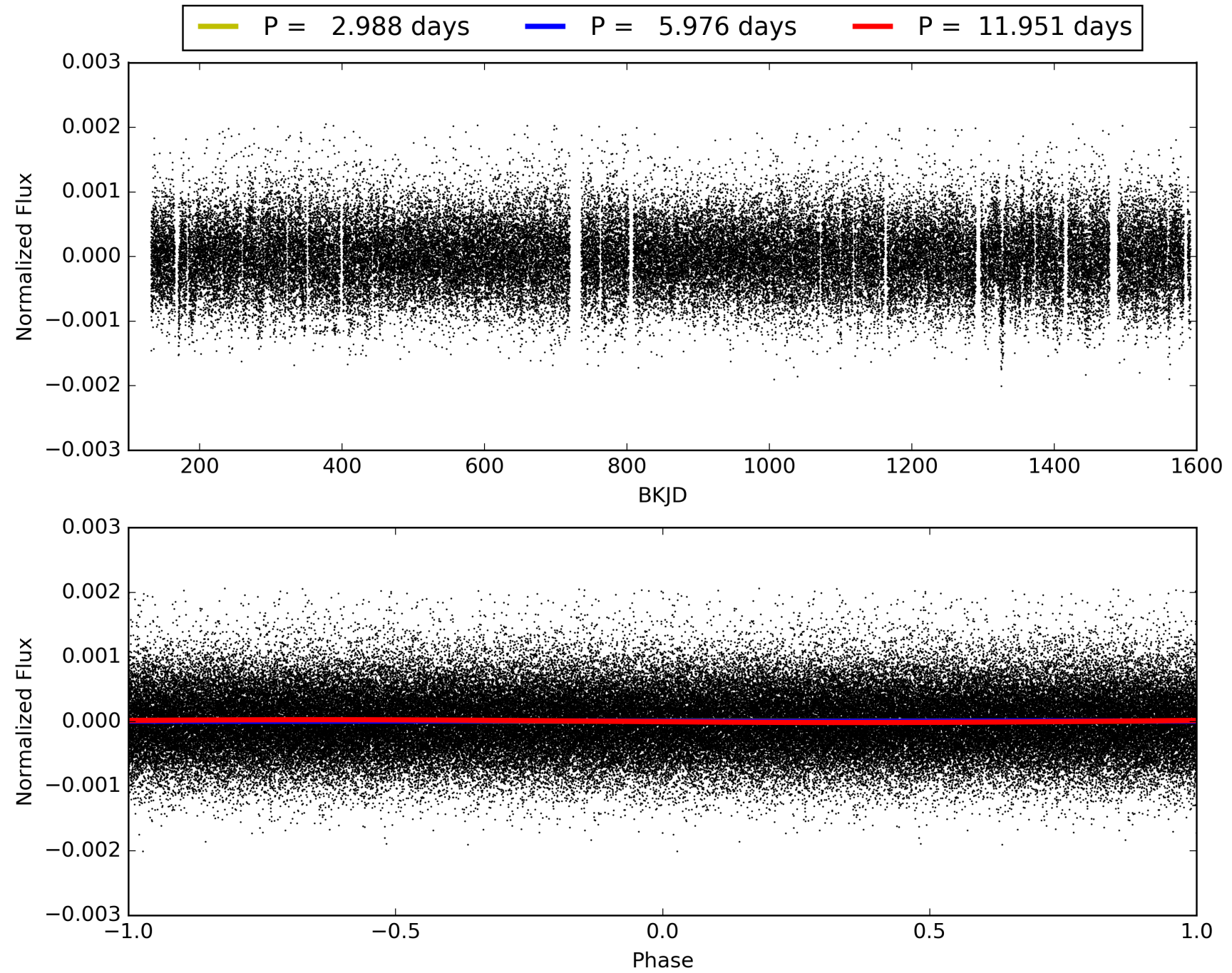
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:10:40 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007032429-04, PDC Light Curves

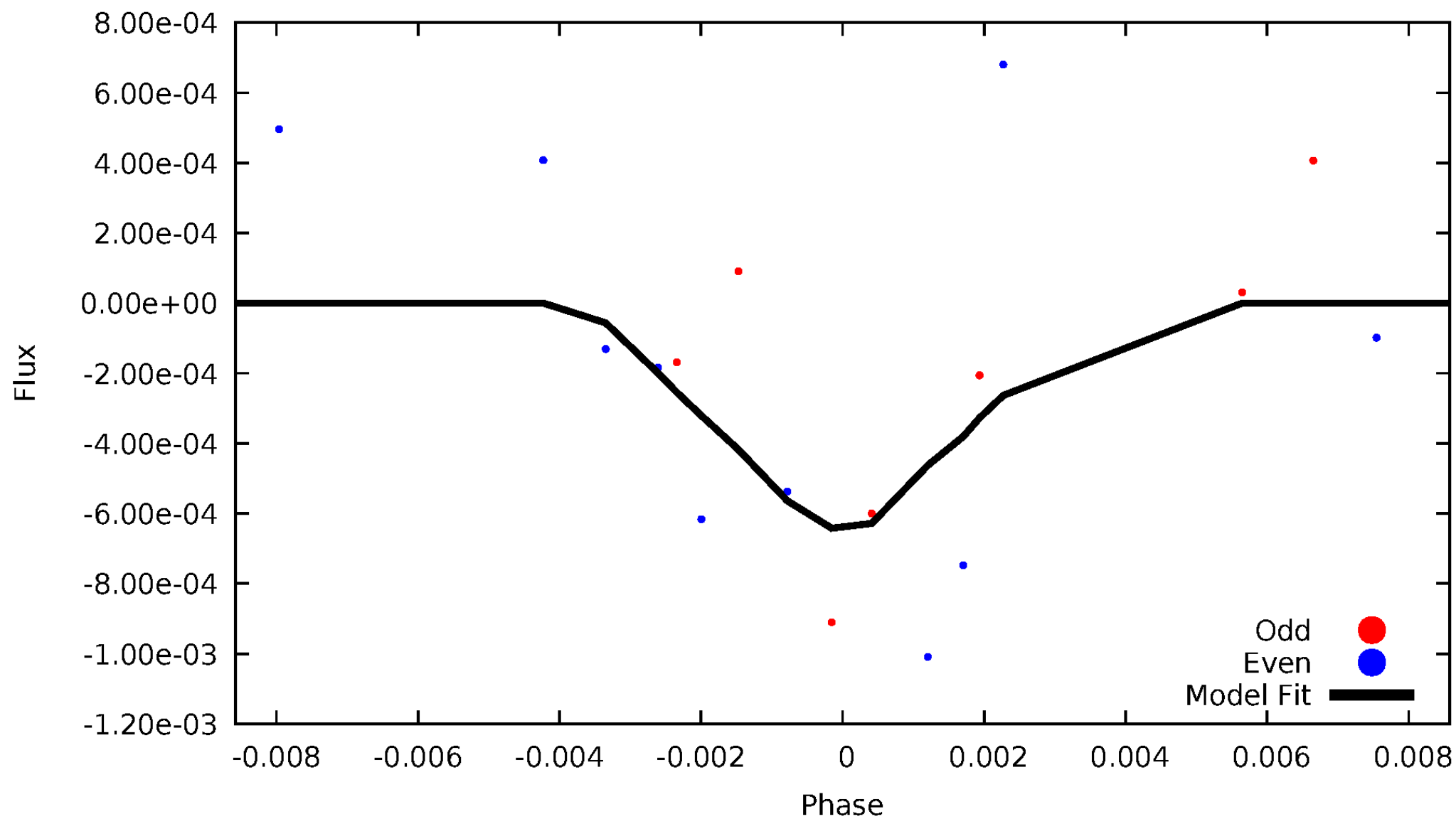


TCE 007032429-04



DV Odd/Even

TCE 007032429-04

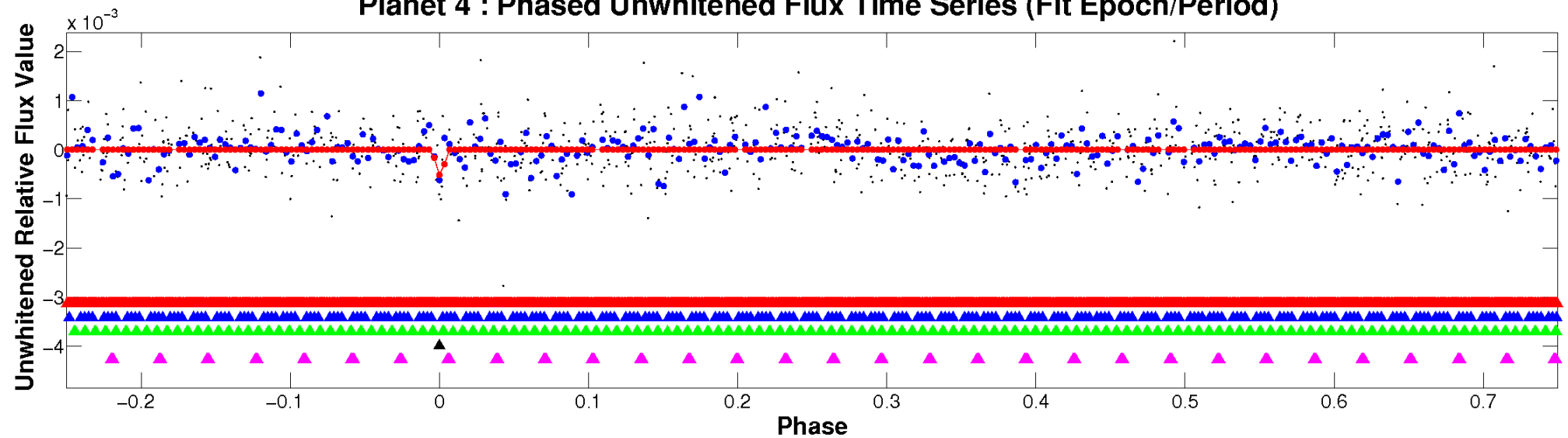


ALT Odd/Even

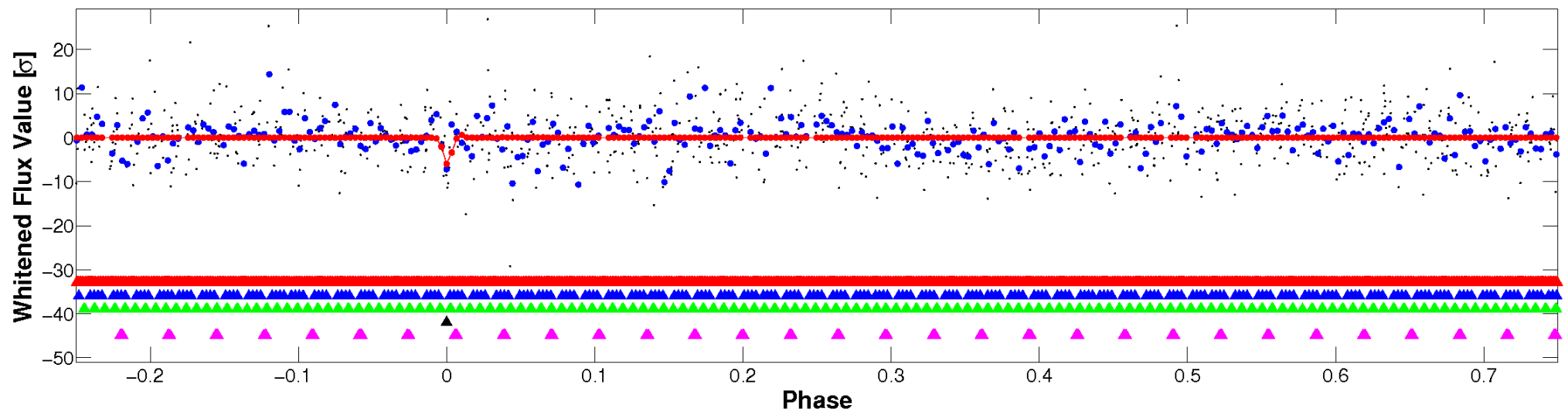
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

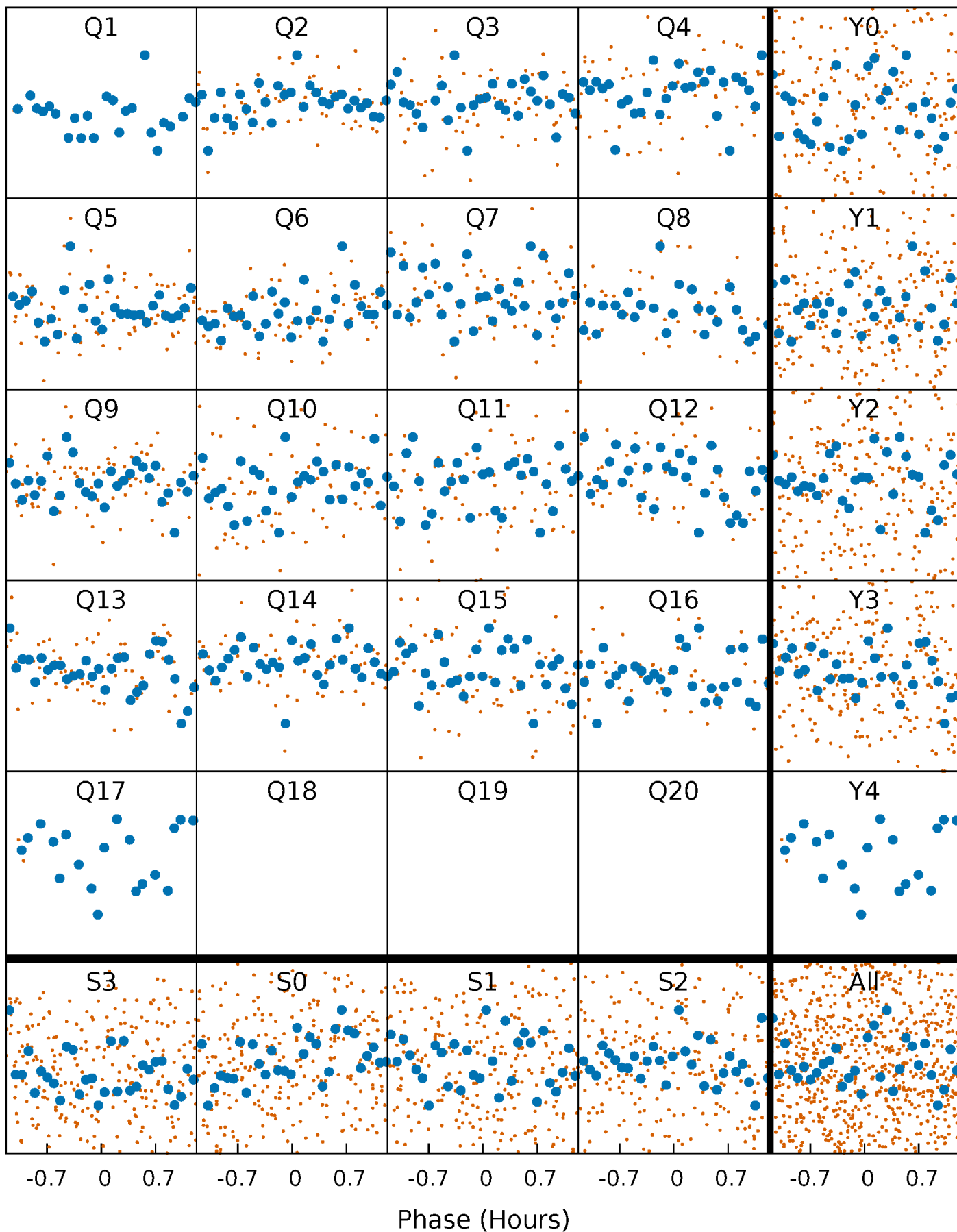


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



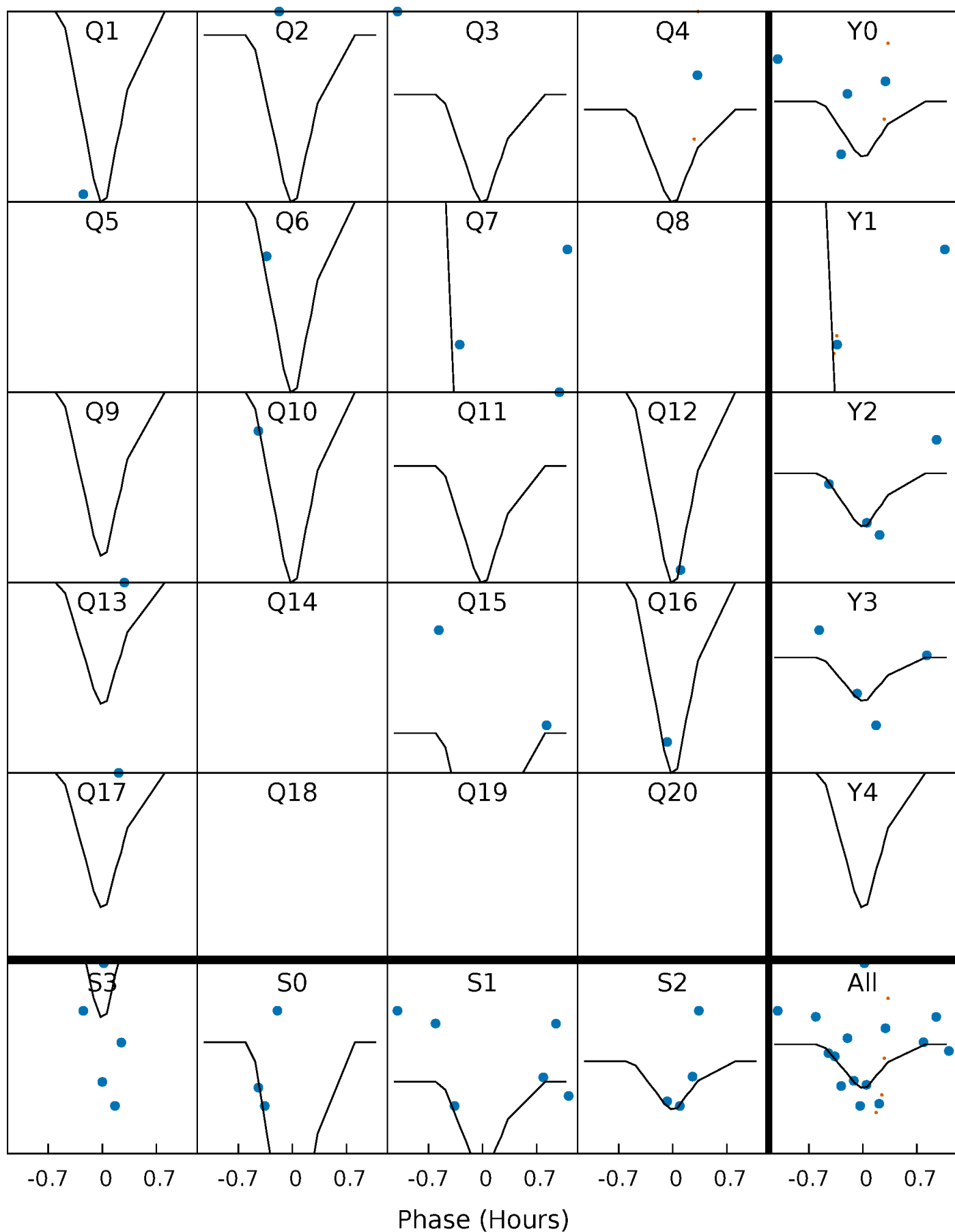
PDC Quarter-Phased Transit Curves

TCE 007032429-04 P= 5.975691 Days $T_0=136.066239$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007032429-04 P= 5.975691 Days $T_0=136.066239$ (BKJD)

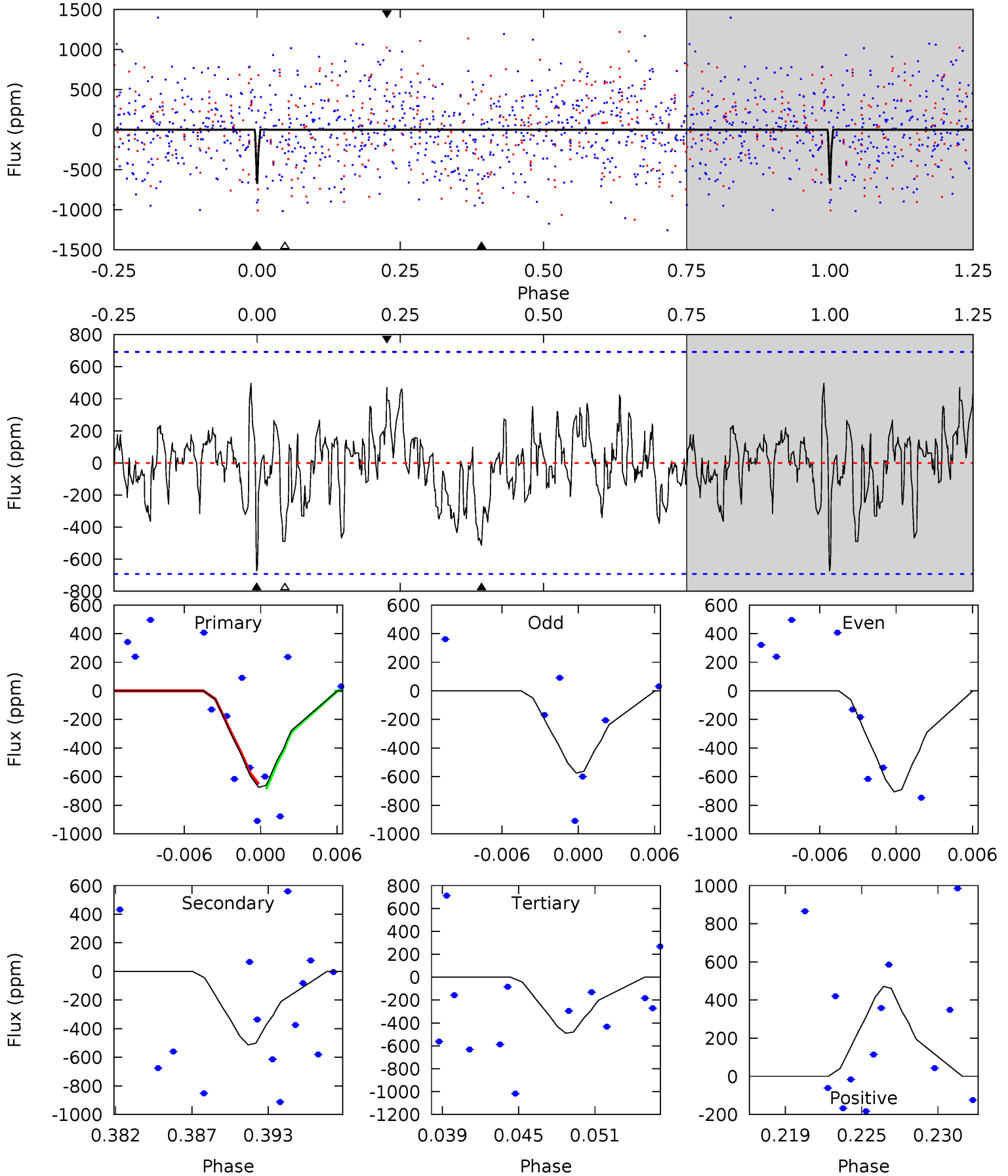


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007032429-04, P = 5.975691 Days, E = 130.090548 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.01	3.81	3.63	3.50	5.14	2.77	1.31	1.37	1.51	0.17	0.31	0.47	0	0.42	0.12



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007032429

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5598^{+169}_{-152}	$4.483^{+0.075}_{-0.162}$	$-0.140^{+0.300}_{-0.300}$	$0.888^{+0.229}_{-0.115}$	$0.874^{+0.104}_{-0.085}$	$1.761^{+0.640}_{-0.766}$
	+3%/-3%	+2%/-4%	+214%/-214%	+26%/-13%	+12%/-10%	+36%/-44%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007032429-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-513 ± 135	$17.42^{+19.55}_{-12.39}$	1325^{+77}_{-59}	2720^{+1296}_{-548}	$3.622^{+38.396}_{-2.852}$
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

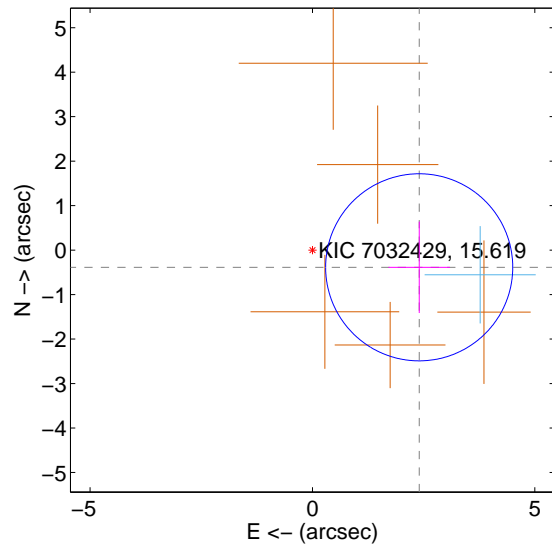
Supplemental centroid analysis for 007032429-04. Kepler magnitude: 15.62. Transit SNR 17.07

There are 1 quarters with good PRF difference image offsets

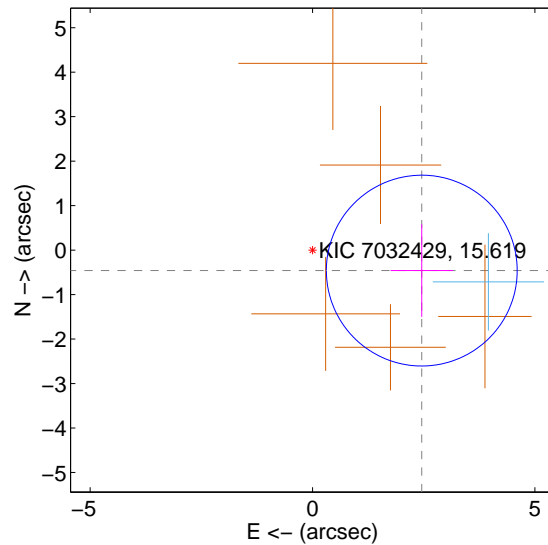
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.431 ± 0.701	3.47	-2.400 ± 0.691	-0.387 ± 1.027
PRF-fit source offset from KIC position	2.499 ± 0.715	3.50	-2.456 ± 0.701	-0.461 ± 1.038
photometric centroid source offset	1.51 ± 0.75	2.02	-0.47 ± 0.82	1.44 ± 0.74

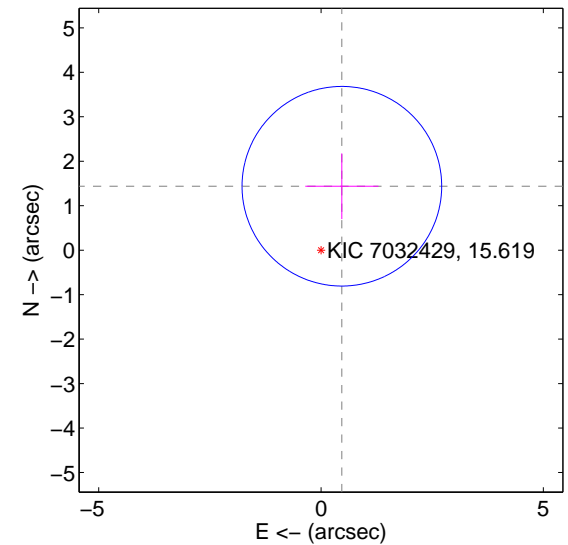
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

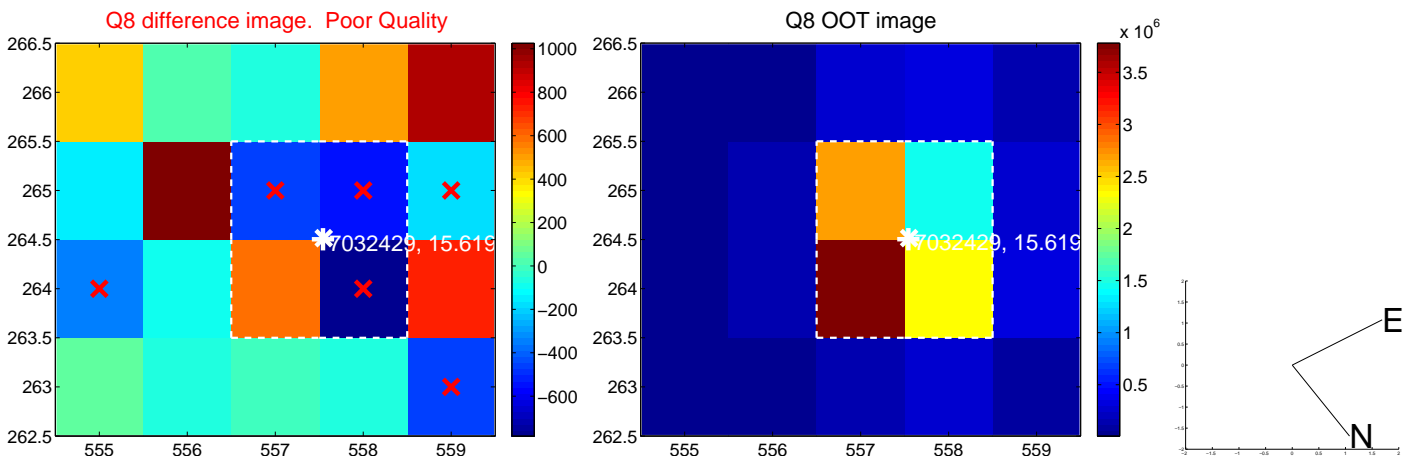
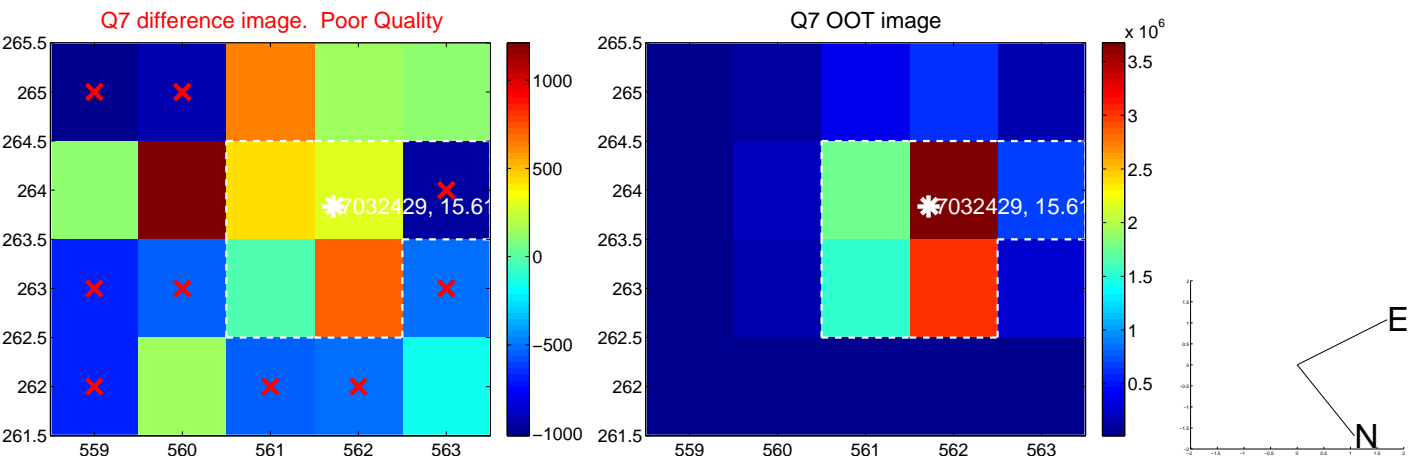
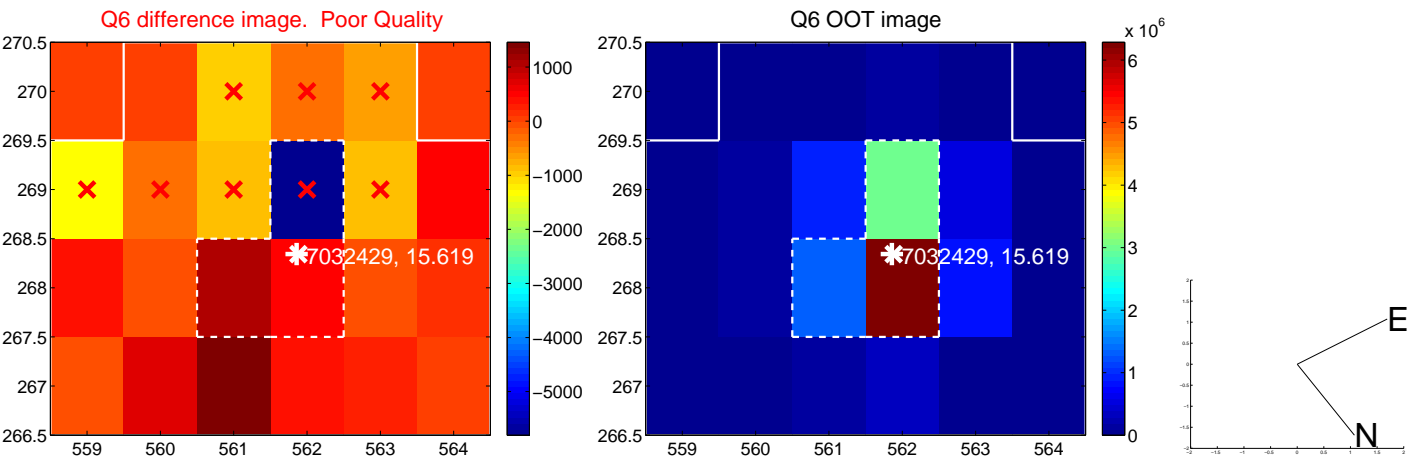
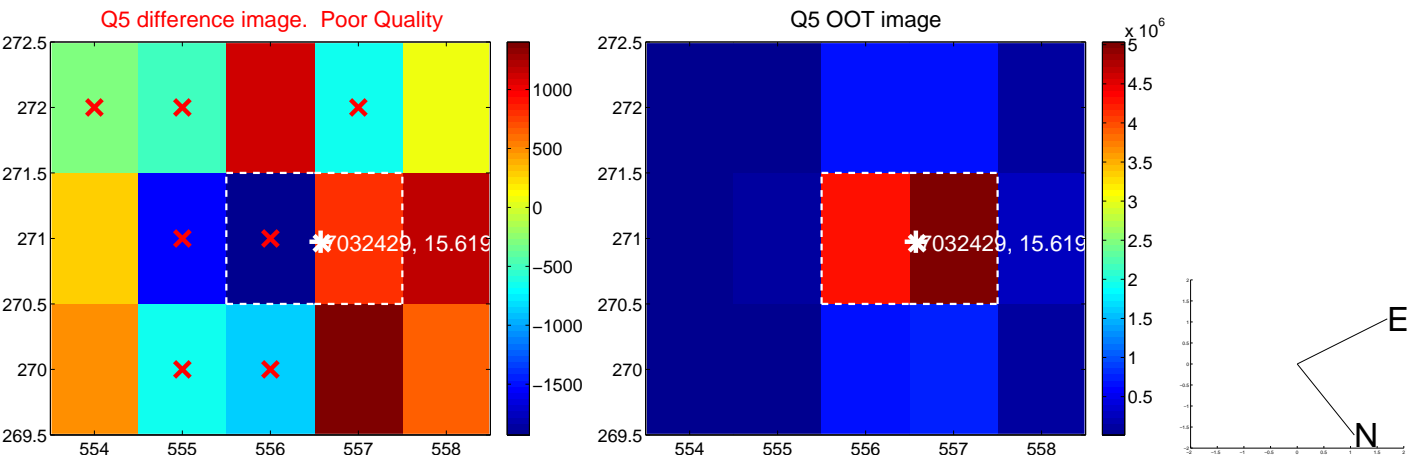


offset from photometric centroids

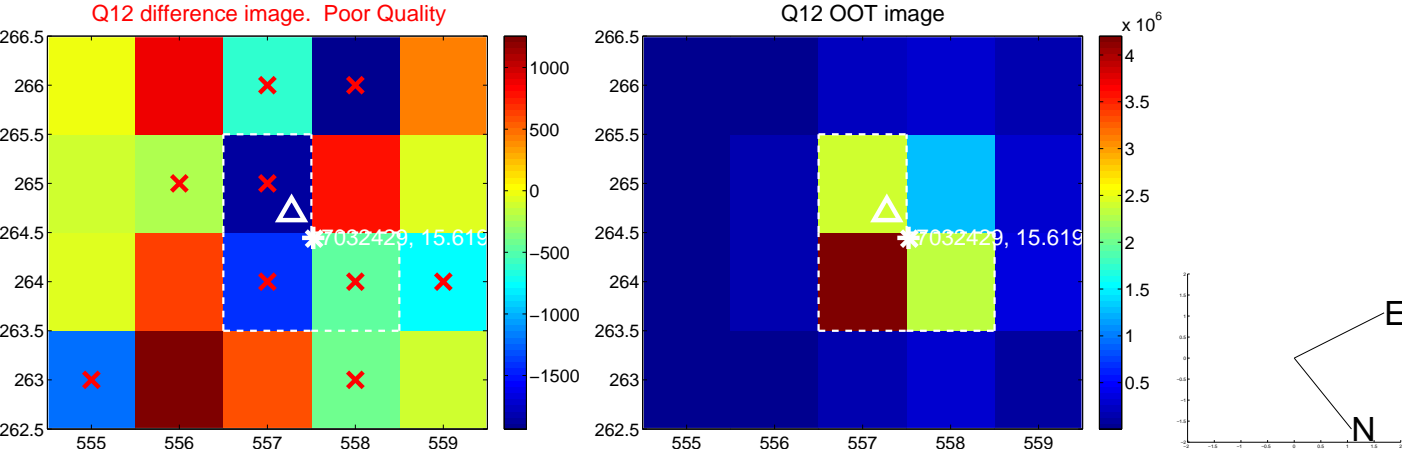
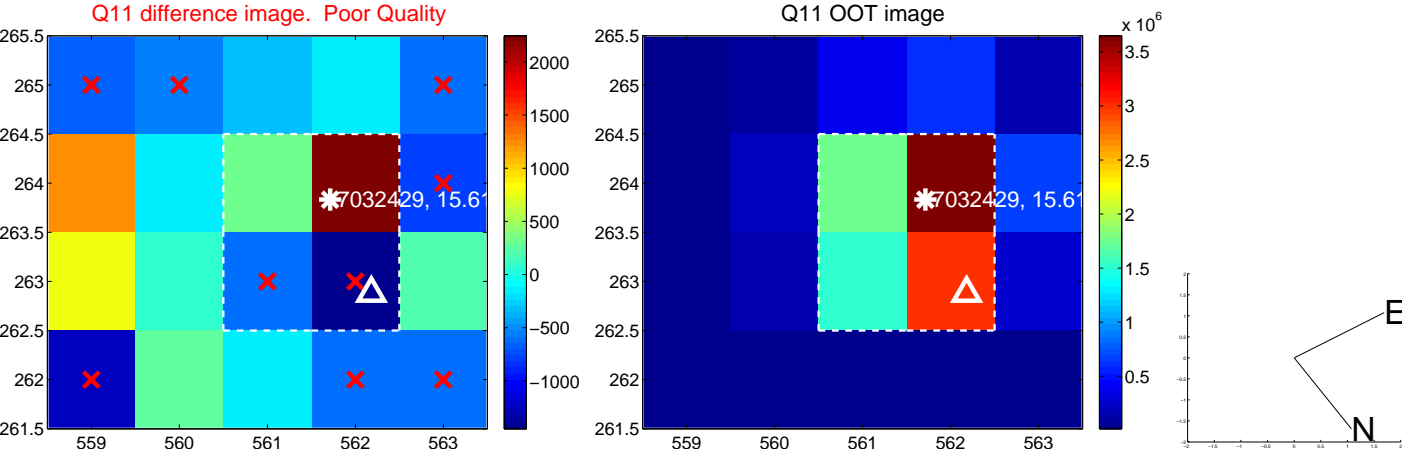
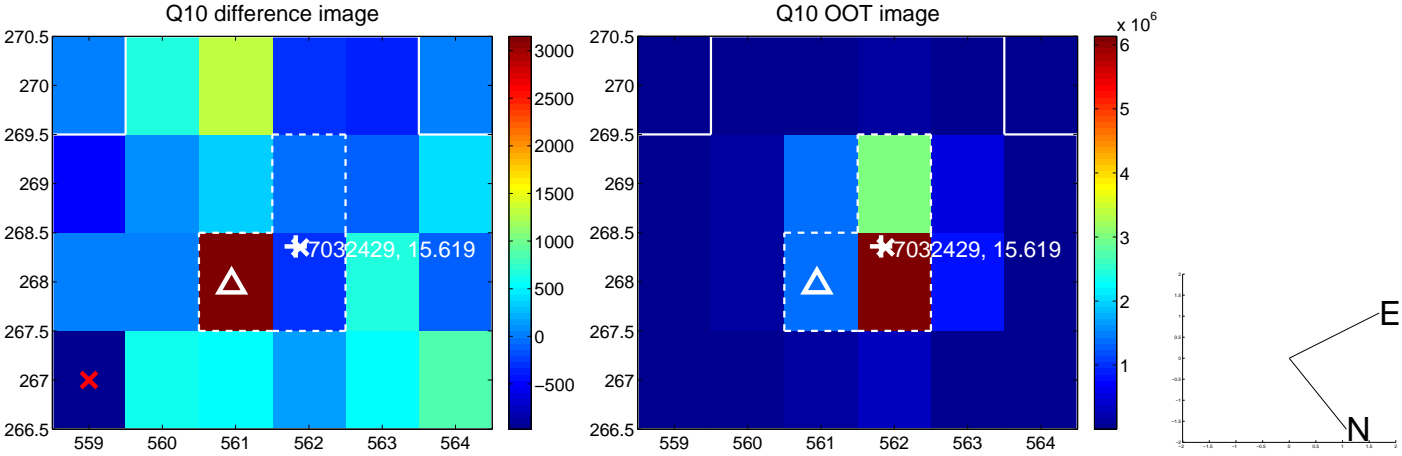
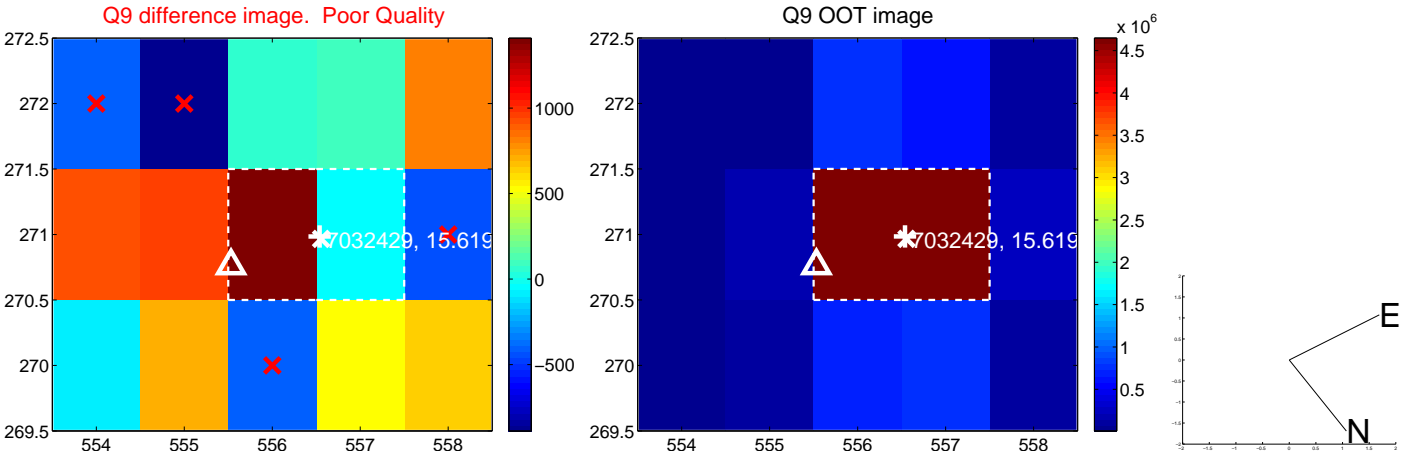


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

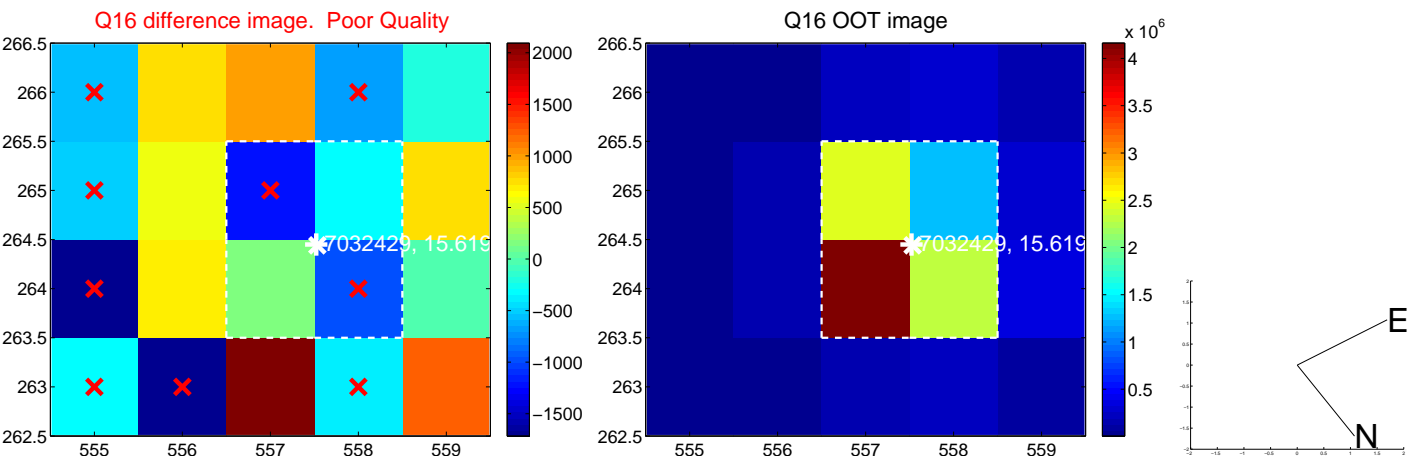
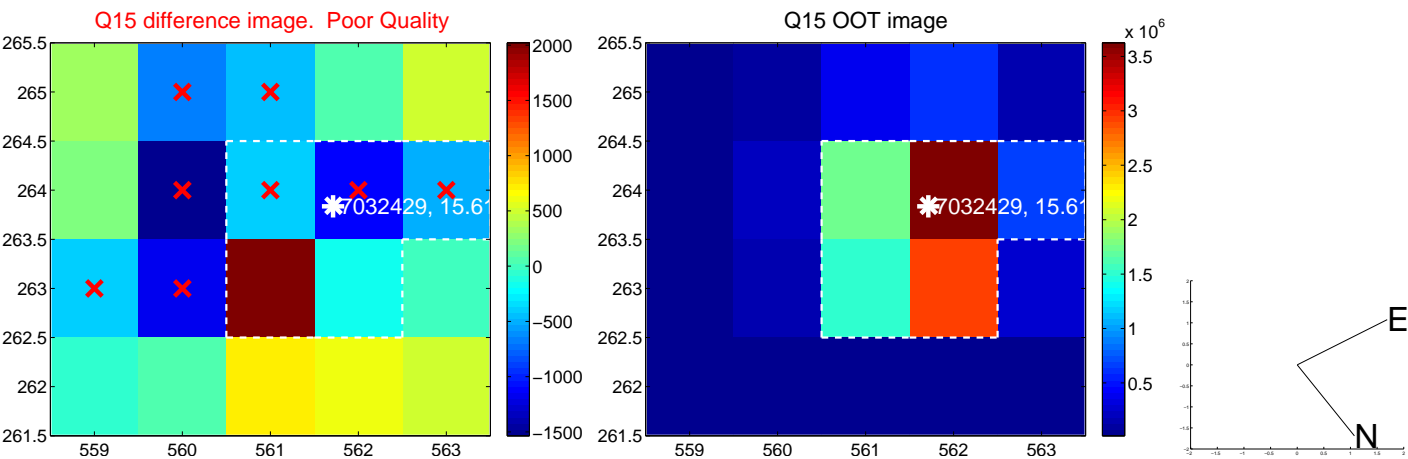
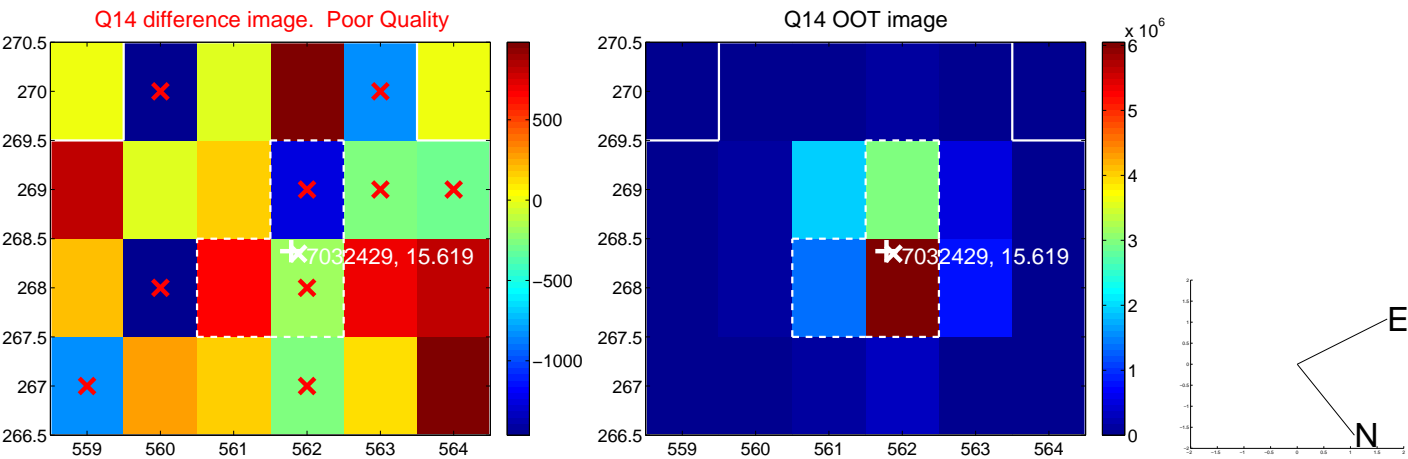
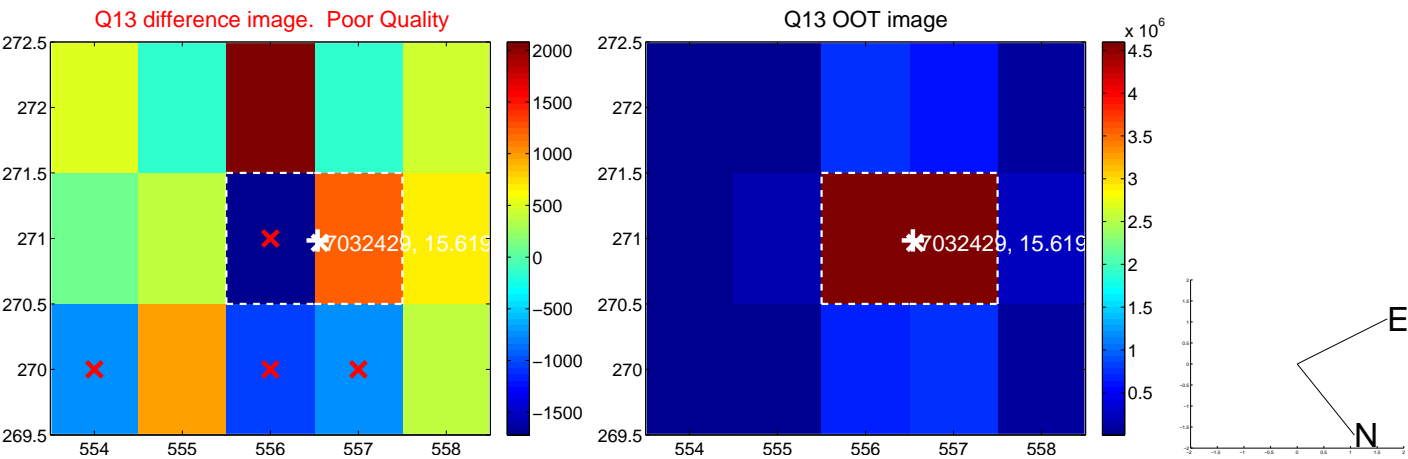
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



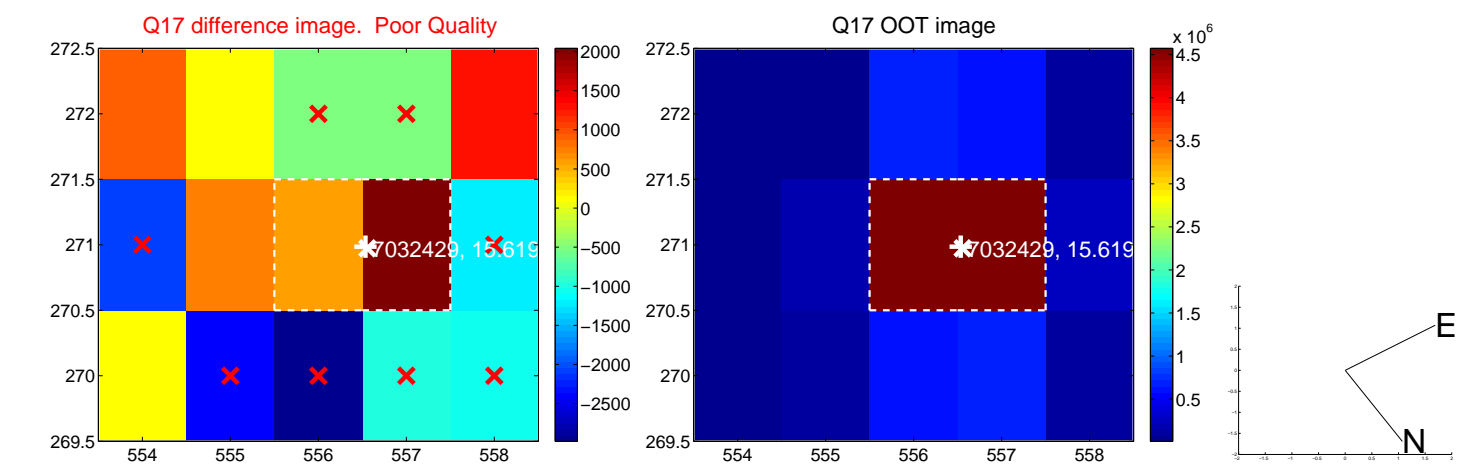
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



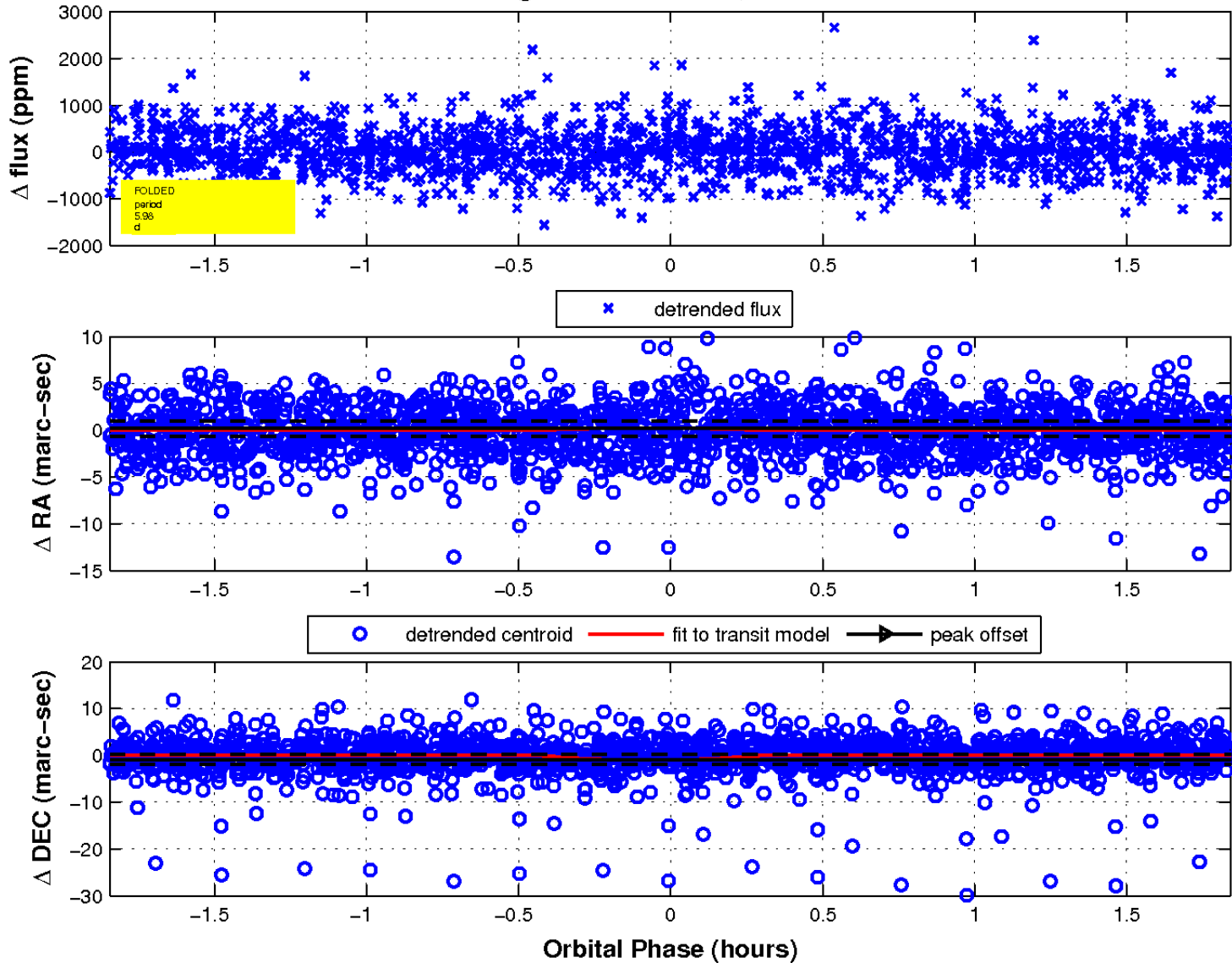
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

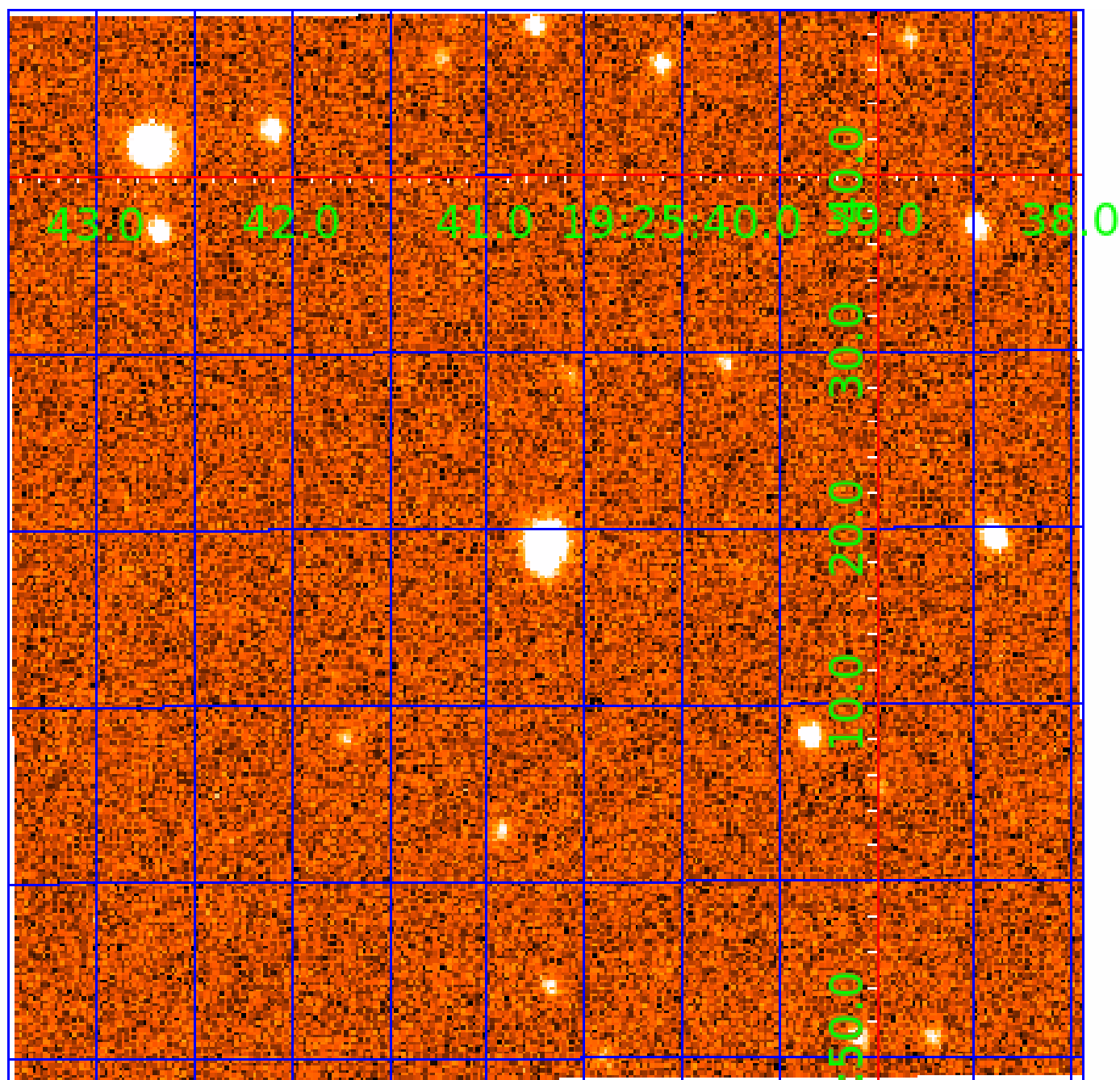


fluxWeightedCentroids, Planet 4 of 5



UKIRT Image

Declination



KIC 007032429

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007032429-01	OBS	No	0.566727	131.901689	12.5	4.296	9.6	3.1	0.89	5598	0.31	4221.52
007032429-02	OBS	No	5.523228	135.892614	539.0	1.519	19.1	18.7	0.89	5598	2.04	202.79
007032429-03	OBS	No	5.116145	131.827460	891.7	0.776	14.5	24.8	0.89	5598	3.23	224.58
007032429-04	OBS	No	5.975691	136.066239	643.8	0.615	15.2	17.1	0.89	5598	2.29	182.58
007032429-05	OBS	No	9.252601	138.423495	3443.9	1.500	15.5	-1.0	0.89	5598	5.17	101.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007032429-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_FEW_DIFFS—HALO_GHOST—EPHEM_MATCH
007032429-02	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS—HALO_GHOST
007032429-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007032429-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—NO_FITS—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

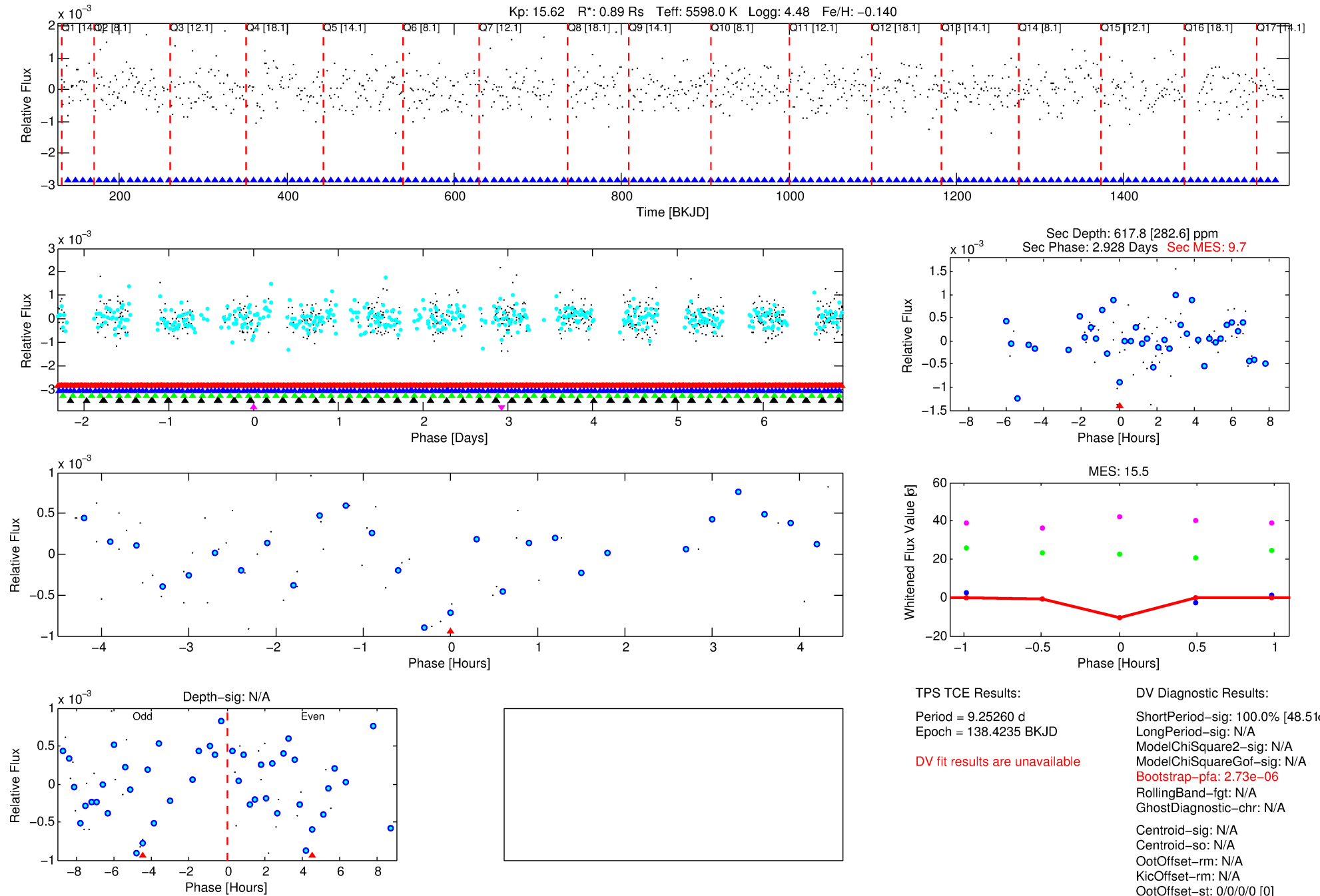
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007032429-05

No Significant Match Found

DV One-Page Summary

KIC: 7032429 Candidate: 5 of 5 Period: 9.253 d



TPS TCE Results:

Period = 9.25260 d
Epoch = 138.4235 BKJD

DV fit results are unavailable

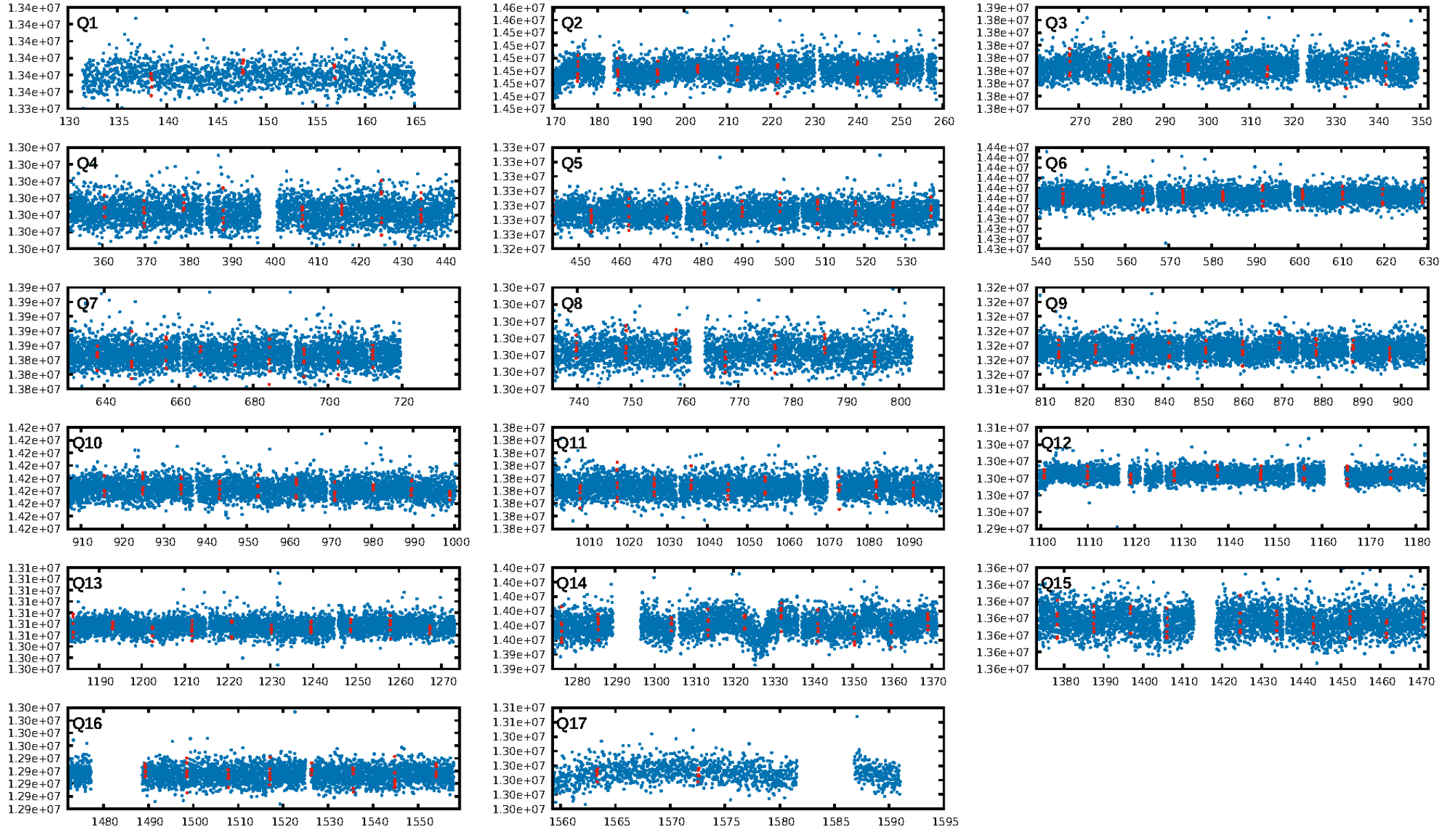
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [48.51σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.73e-06
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

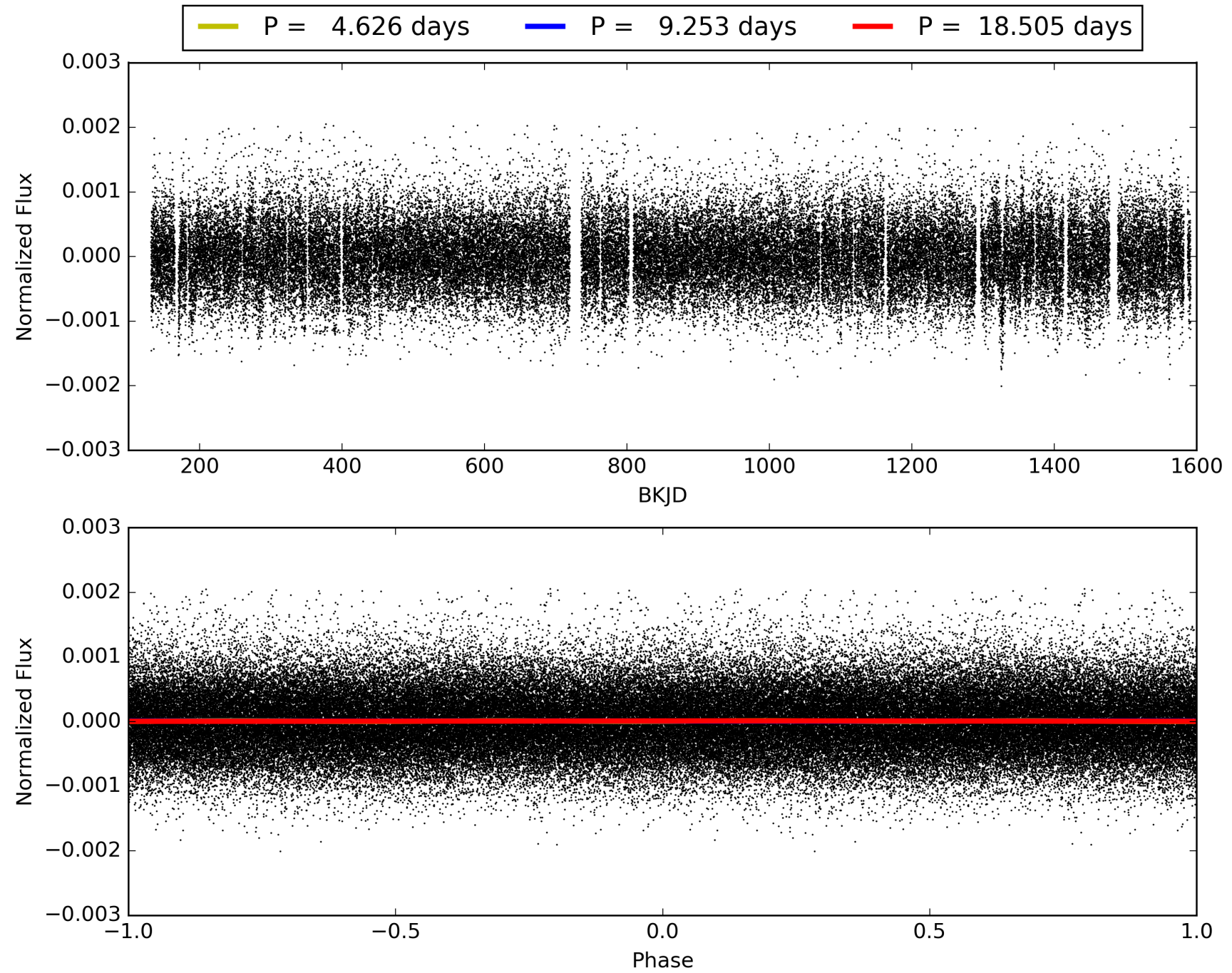
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:10:42 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007032429-05, PDC Light Curves

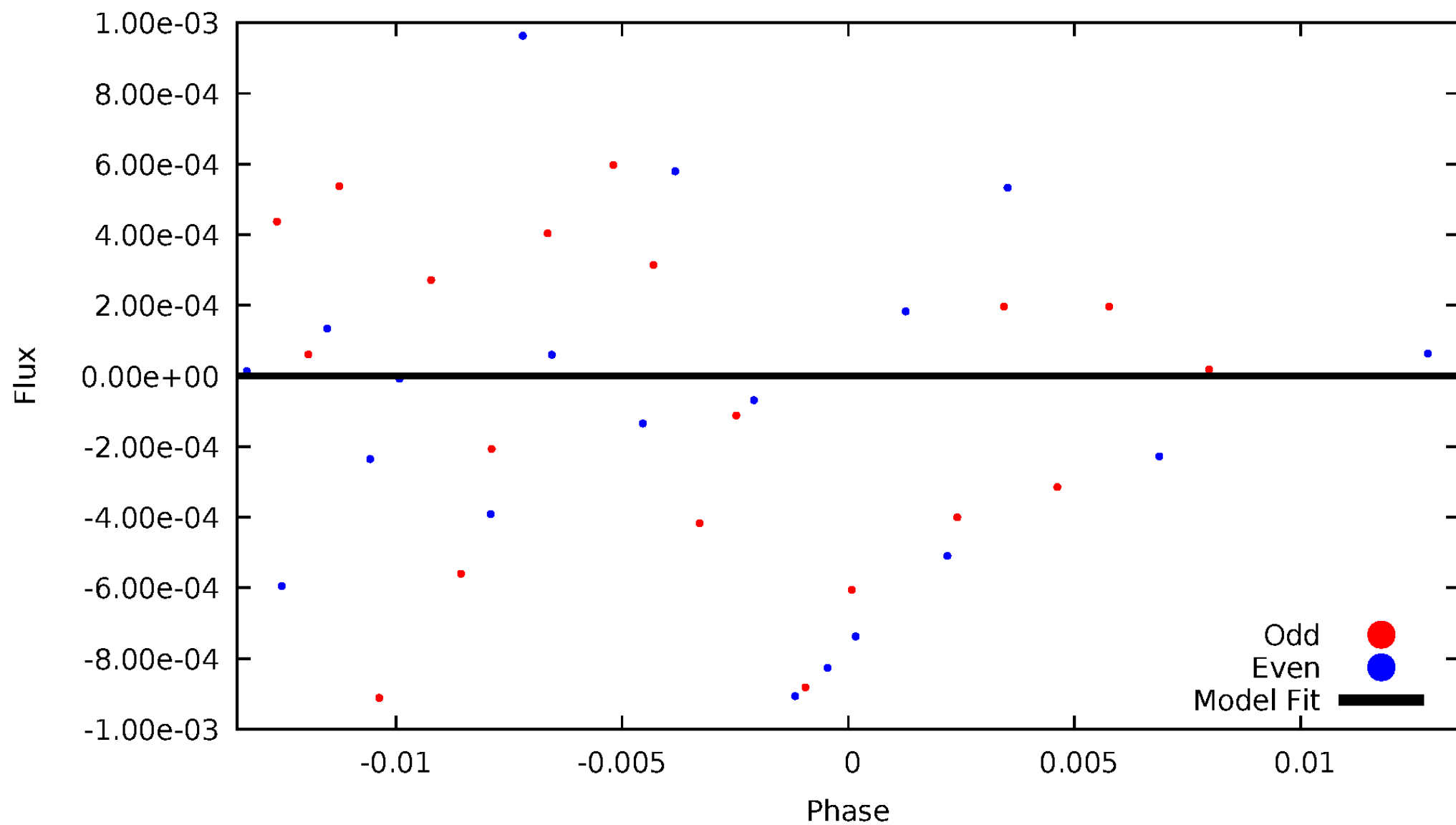


TCE 007032429-05



DV Odd/Even

TCE 007032429-05

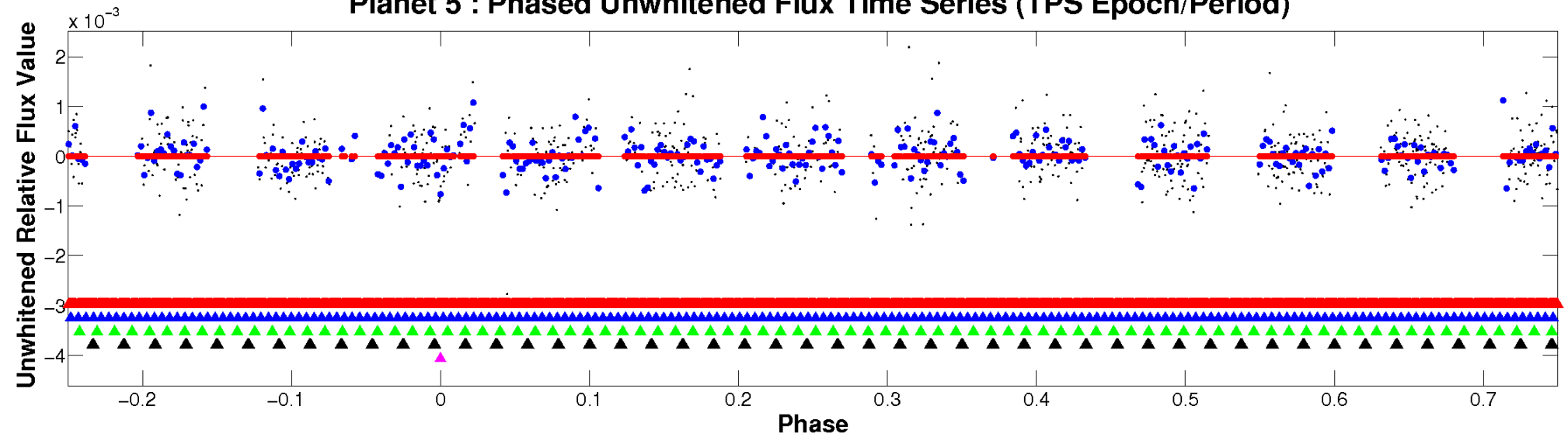


ALT Odd/Even

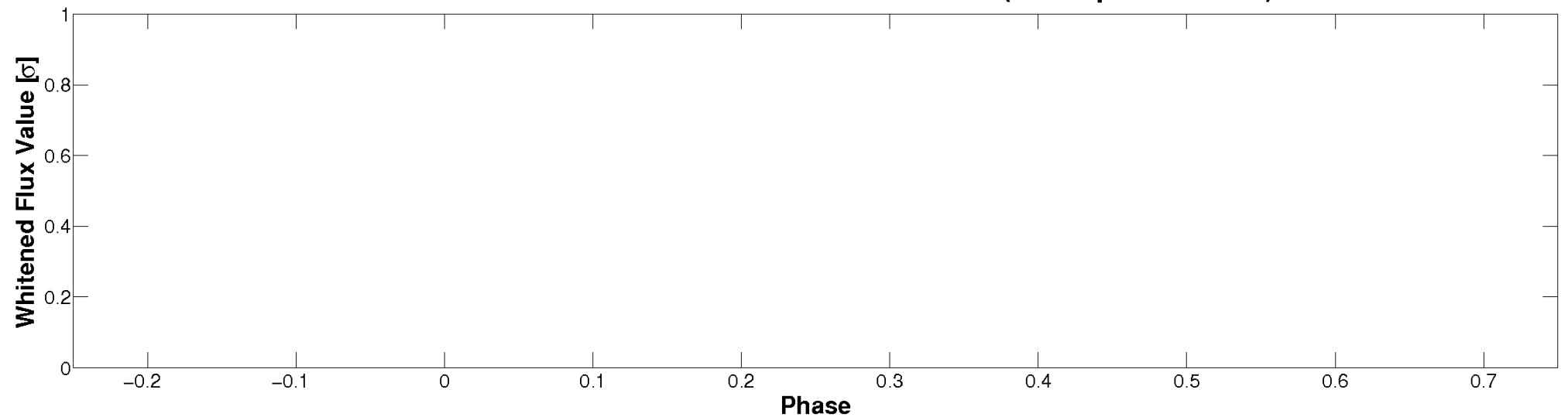
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

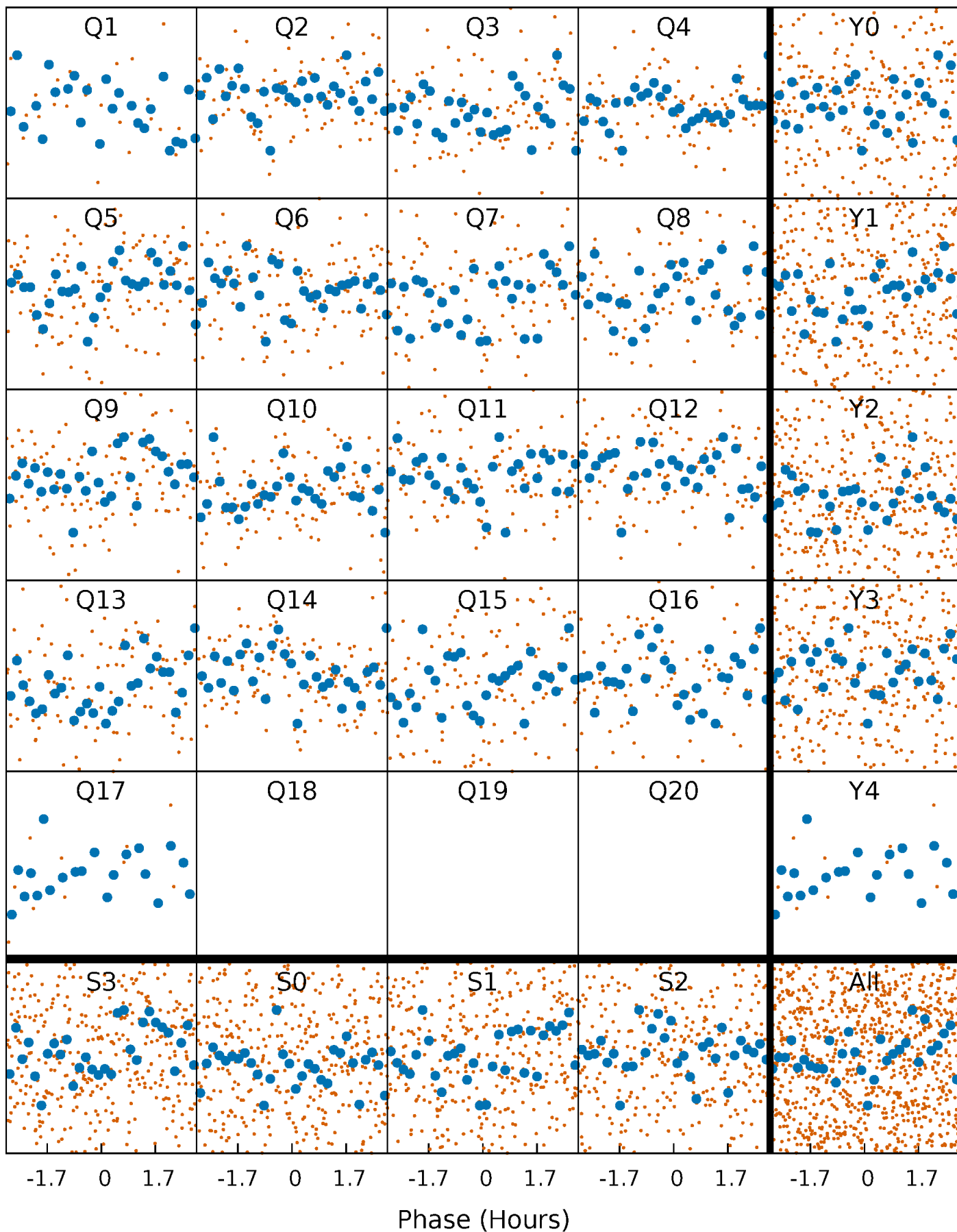


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



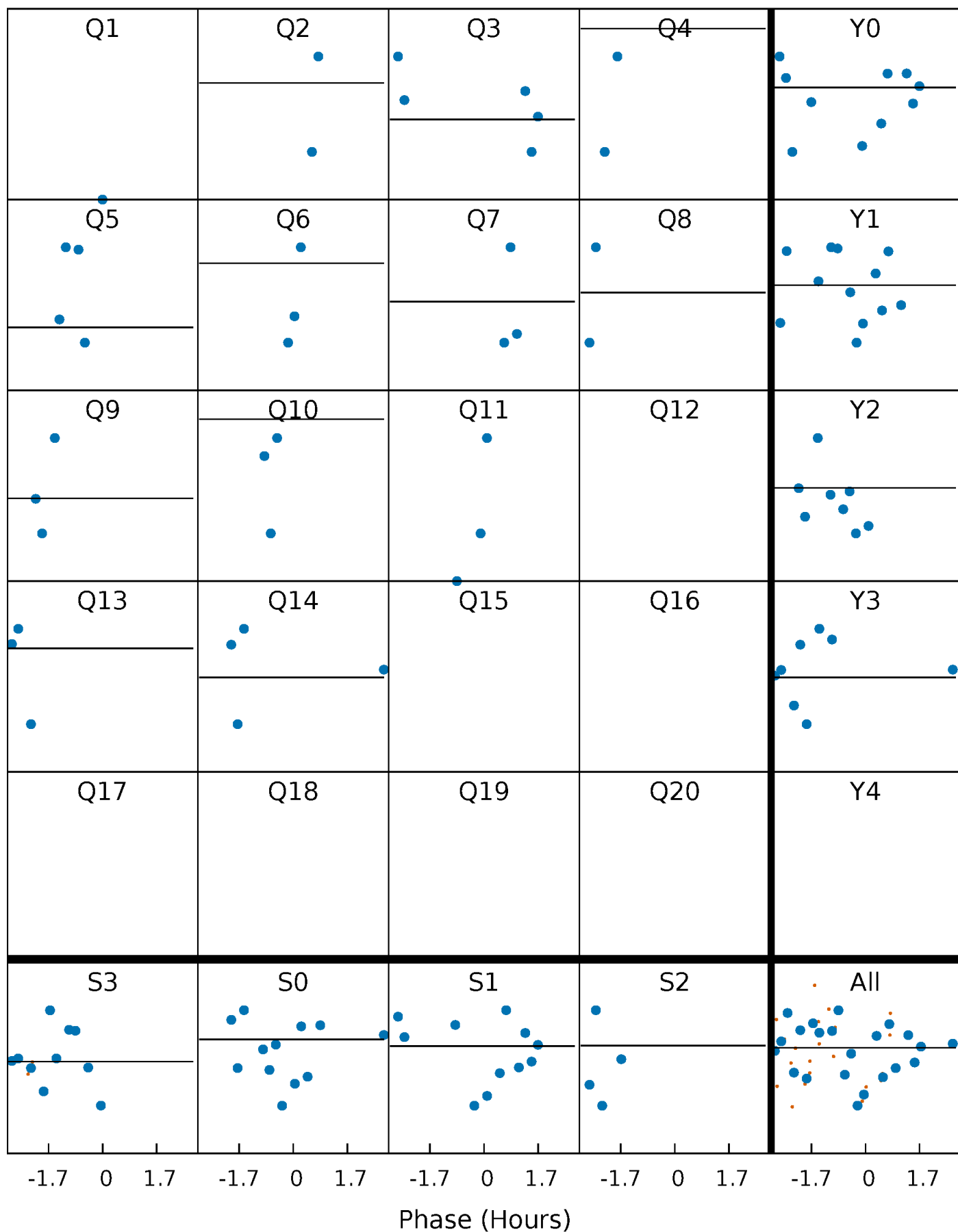
PDC Quarter-Phased Transit Curves

TCE 007032429-05 P= 9.252601 Days $T_0=138.423496$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007032429-05 P= 9.252601 Days $T_0=138.423496$ (BKJD)

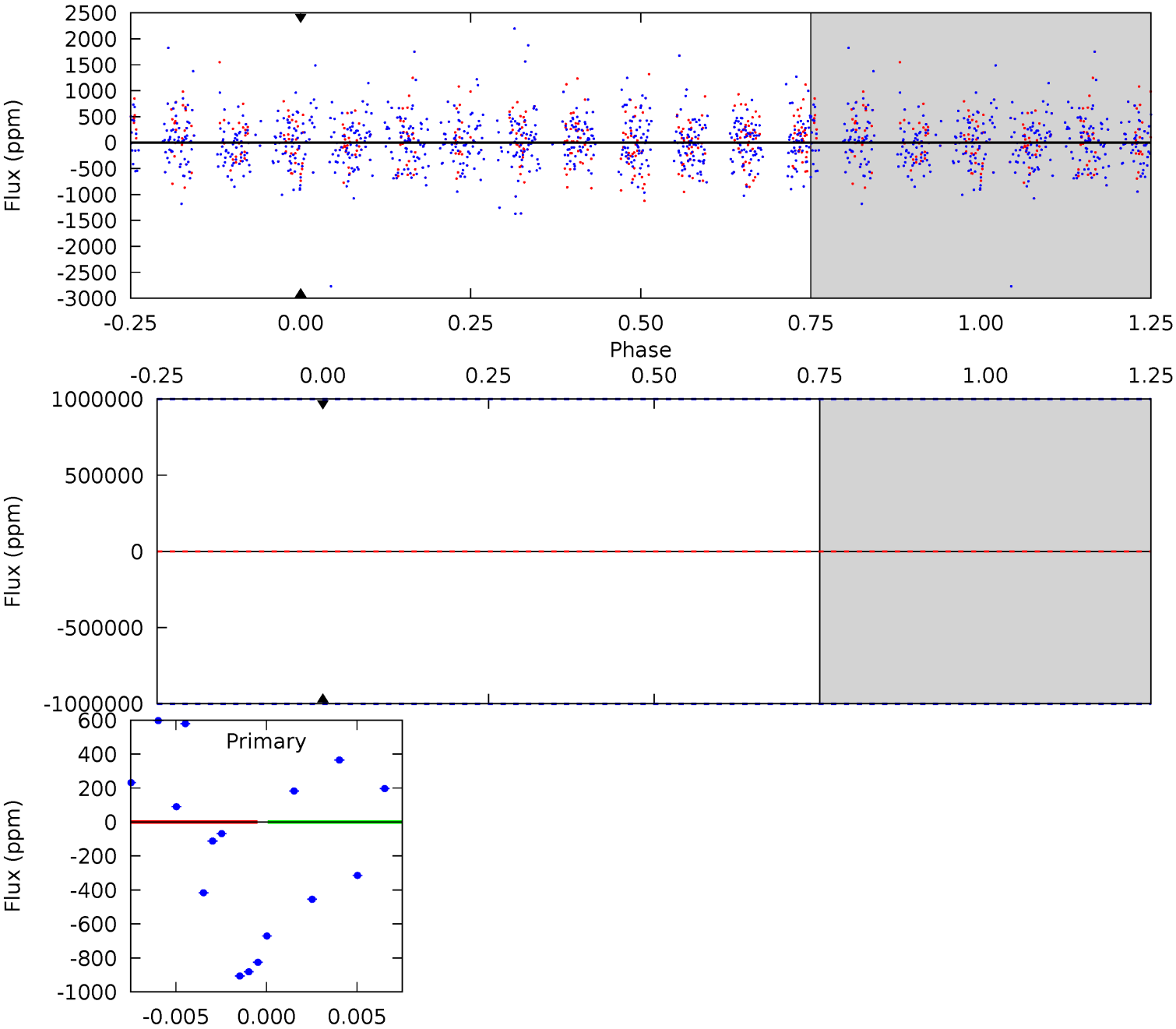


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007032429-05, P = 9.252601 Days, E = 129.170895 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007032429

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5598^{+169}_{-152}	$4.483^{+0.075}_{-0.162}$	$-0.140^{+0.300}_{-0.300}$	$0.888^{+0.229}_{-0.115}$	$0.874^{+0.104}_{-0.085}$	$1.761^{+0.640}_{-0.766}$
	+3%/-3%	+2%/-4%	+214%/-214%	+26%/-13%	+12%/-10%	+36%/-44%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007032429-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$8.72^{+8.55}_{-5.69}$	1149^{+75}_{-57}	4468^{+12073}_{-19525}	145^{+8905}_{-6841}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

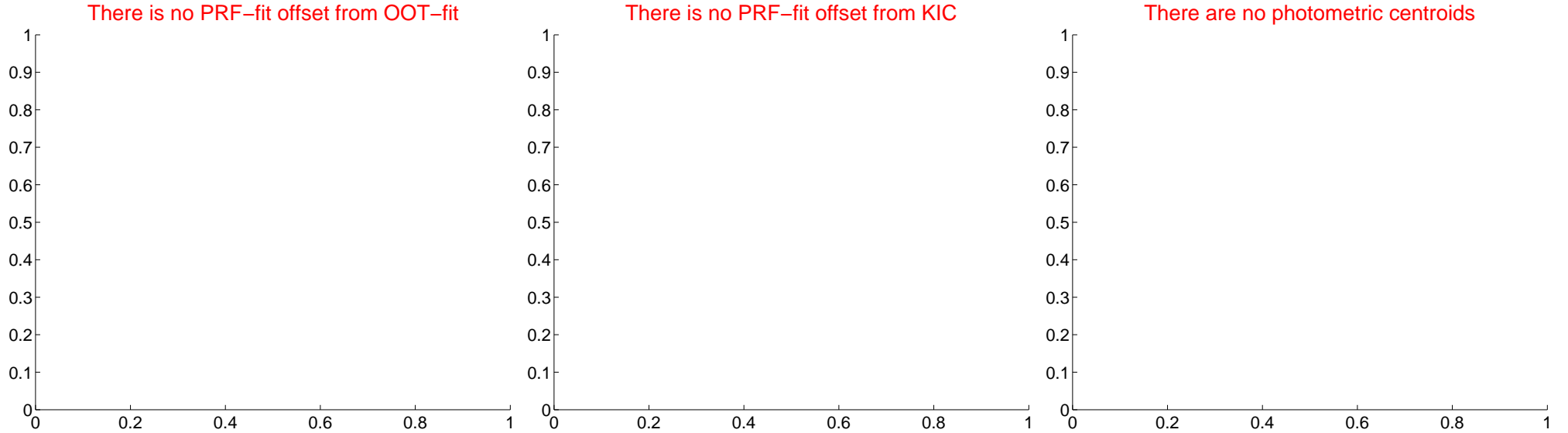
DV Centroid Data

Supplemental centroid analysis for 007032429-05. Kepler magnitude: 15.62. Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

